

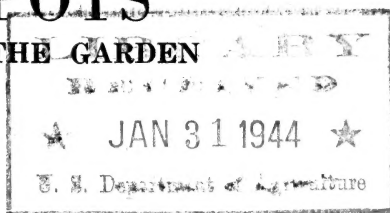
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BULBS FOR POTS

AND SPRING PLANTING IN THE GARDEN



A CATALOG OF BULBS OF THE AMARYLLIS, IRIS, LILY, ORCHID, ARUM OXALIS AND OTHER PLANT FAMILIES

Special Articles: Food For Victory, a Personal Letter to You; How to Grow Amaryllis; How to Grow Bulbs in Pots; Discussions of Soils, Fertilizers, pH of Soils, etc. Culture Directions for All Bulbs.

SPRING 1944

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FOOD FOR VICTORY

A Personal Letter, — to You

Dear Floral Friends:

I am constantly receiving friendly and agreeable letters from you, our customers who love flowers and buy our bulbs. If for no other reason, a mutual love of flowers creates a basis for friendship. Therefore I need make no apology for addressing you as friends.

The word "friendship" inevitably reminds us that today nearly all Humanity is at war. The greater half, The United Nations, who would like to see friendship prevail which in the final analysis means the liberty and equality of all, are opposed to the Axis Powers, who would lift themselves into the position of supermen, conquerors and enslavers of the rest. Thus instead of friendship prevailing thruout the world, there is the opposite, enmity. The Axis are our self declared enemies and we are forced to accept them as such and to act accordingly.

Our aims are declared in the Atlantic Charter and those aims we mean to accomplish. Tho weak at first, because, peace loving as we are, we were unprepared, we are now strong. Tho at first the outcome appeared to be in doubt, now our Victory is fully assured.

Unrolling before our view at this very moment, current events present the picture of a developing Armageddon as outlined in prophetic literature. But we have made our right arms strong to wield the sword of the Lord and our hearts are strong in our faith in Him and our cause. There must be no wavering now, no weak sinews in our strength. The Brotherhood of Little Men must yield to the Brotherhood of All Men.

It is my prayer that every one of us, our soldiers and sailors at the front or in training, privates up to highest officers; our men in industry, laborers all the way up to the capitalists who have made the industrial war effort possible, may be inspired by the high aim of Victory for our righteous cause. May they forget minor grievances and perform their own duties even at the expense of self

sacrifices. Only as we are willing to sacrifice, can we conquer.

I believe in the efficacy of this prayer and this inspiration. I do not believe in asking God to become a physical agent for accomplishing results that I personally desire. In the literal since he is neither engineer nor fireman; He turns no gadgets, pulls no levers, sets no brakes. He is spiritual, not physical. He created us in his own image spiritually. Those of us who have created a god in our own physical image have not yet found the true God altho they usually assert themselves right most firmly and all others wrong.

God's law is perfect, unchangeable, eternal. He will inspire those who have open minds and faith along with just aims if they ask Him. Lacking such agents, the good has often lost to evil forces. We, the United Nations, are the physical agents.

This, I think, should be our prayer, the prayer of every one of us from low to high, for the inspiration to accomplish this purpose. To the extent that we seek selfish aims we become weak. Our strength lies wholly in making self interests secondary to the good of all. Certain ones of us have failed in this.

With this prayer in our minds, with our stronger bodies, our confident cour-



THE HERBERT MEDAL

age and a righteous purpose we approach Armageddon. We hope and believe the Victory may not be long in coming.

Our leaders ask us to realize that there may be casualties. But note several things. Have you not observed the extreme care given to protect the lives of our soldiers? To reduce casualties to a small fraction of our total forces? Sometimes I feel that the bomber pilot above Berlin is almost as safe as the automobile driver in the mad medley of a New Year's celebration in Los Angeles. Again, have you noted the frequency with which our leaders reverently mention the name of God? Because they do sincerely realize that we are in the hands of Him, agents to accomplish His purpose.

Friends, before I write you again in our Fall Catalog, I believe that we will have crushed the evil power of Hitler. We will if we remain strong in every sinew. But if we do not, Victory will be delayed.

Food Fights For Freedom

In 1943, Americans have fully demonstrated their ability to cooperate in the production of food. It was necessary that we should grow more vegetables, and fruits, raise more chickens, rabbits and food producing animals in order that more food could be sent abroad to our fighting forces and to our allies who are unable to produce enough. We did it. I do not need to mention facts or figures. This has been done. But I can tell you what the Houdyshels are doing and intend to do because there is still more that we all can do.

The Houdyshels raised more sweet corn, tomatoes, potatoes, beans, peas, squash, turnips and chickens than ever before on this Rancho de las Flores. A backward season in spring and lack of labor made us a little late in planting but we had sweet corn and green beans until Dec. We still have a few living tomato vines with ripening tomatoes in Jan. We have green peas now as they are a winter crop here. The Avocado was almost a failure but we had enough and some to give away. We had plenty of oriental persimmons, enough peaches, berries, a few walnuts etc.

Our chickens have been coming along fairly well with a few set backs due to our inexperience. We have had our fried chickens and our eggs. We have even had eggs to share with our good neighbors at the wholesale ceiling price, as we feel that this is not time to take the advantages of a "seller's market."

But we must admit that we did not have enough of those stamps which were first red but now brown. I can eat very little starchy food, not rationed, and must eat more butter and oils, all expensive in ration point values.

Butter, peanut oil, (as good as butter almost) crisco, meat, etc., all require brown stamps and we often ran out too soon and did without some things. We were willing to do without if necessary but also intent on the discovery of ways and means to avoid it. We did.

Before Pearl Harbor, I weighed 165. Last summer I got down to 142. I now weigh 152. I have never stopped working mentally and physically but there have been times when I reached my capacity for work too soon.

I Got A Man's Goat

It may seem like a divergence, wholly out of place, to tell you a joke at this point of a serious discussion. But it may not be such a joke after all. I believe you will all admit, when you consider the circumstances that I was justified in getting his goat and the fact has never given me one moment of regret. Nor do I have any sympathy for my victim because he still has another goat and a cow.

So I got his goat by giving him a check. The goat's name is Peggy. Altho not in the most productive part of her lactation period, and already bred she was giving over 2 quarts a day. We are now milking irregularly but she insists on giving about three pints a day.

I have had goats before. Perhaps 18 years ago, I bought several goats. First a Toggenberg, then a high bred Saanen and later others. I whipped the ulcers and I weighed up to almost 190. But I have been on milk diets and more milk diets and seem to resent it, wholly psychological. So I began to fancy I could notice a goaty flavor and sold the goats.

Last August at a family dinner party my brother, G. A. Houdyshel, Box 81,

Roscoe, Calif. who must have 50 or more Nubian goats, talked so enthusiastically to me about his goats that he reawakened my interest. Altho a fellow victim of ulcers, he is fat and sassy. The picture of good health.

Well, the upshot of all this was that I bot the goat and have another ordered from him. I expect to get about three altogether.

Am I glad to have found the solution for the dearth of brown stamps. My brother came out to help me build a milking platform and stanchion and brot along one quart of cream, Ethel put it in the Mixmaster and churned. How much butter do you suppose she got? Almost a full pound! I never ate better butter. I am finicky, terribly, about milk and butter. I will have none but the best. But I can't tell Nubian butter from that of the best Jersey. Allan assures me that Nubians give the best flavored and the richest milk and my own experience and observation convinces me that he is right and that Nubians among goats are like Jerseys among cows.

We have purchased a Sears Table Model Cream Separator. We have a Mixmaster and also a small glass churn. We are all fixed up as soon as we can be milking two or three goats. I am already gaining weight, letting out the notches in my belt and it appears I shall have to buy pants with 36" waist in stead of 34", the next time. I whipped ulcers. Now I am whipping Psychology.

By all means I advise you all to buy a cow or a goat. If you live on a city lot, a cow is probably out of the question. But even if you only have a 10x20 ft. space a goat is possible. Our goat barn is 6x8 ft. The lot, 12x18 ft. and we propose to keep three in these quarters. I've seen it done in a much smaller space.

We feed many weeds, alfalfa and grain. Our milk does not cost us 5c per quart. When I asked brother Allan if I might refer inquirers to him he seemed hesitating, but being the Abou ben Adhem type he agreed. He has plenty of customers for his Nubians and needs no advertising. The incentive for this discussion is wholly "Food for Victory". We are interested in having you produce your own vegetables, fruit, chickens, eggs, rabbits, milk, cream and butter. Everything possible. Even on a city lot 50x150 much can be done, and still leave room for flowers.

Place A Light in Your Window.

with a Golden Calla, a White Amaryllis or a vivid Ranunculus. That light says, "Here is a Home", "Welcome son, or father" or it may say "Here is Peace, Love and Comfort." It may even be something to live up to.

For while we are concerned about Food For Victory, we must not forget that flowers are included because flowers are food for the soul. They are builders of morale. The people of England tho sorely beset; their homes, greenhouses and gardens rained on by Nazi bombs have not forgotten flowers for as Mrs. Miniver said, "There will always be roses in England."

There need be no more than slight restriction if any on your outside gardens. There is none at all on your window garden for winter flowers. I hope that you will grow all that you have space for. The boys in camp or at the front will be disappointed when they return if it is not to the same kind of home they left. Don't make radical changes. Be sure, of all things that there are flowers. You would be surprised at the number of boys who write for our catalogs to read, who even send orders for bulbs to be sent home and a V-mail order from a Lieutenant in Australia.

Flowers are the Light and the Soul of America.

In the preparation of this catalog, I have given much attention to the care and culture of bulbs in pots. I feel that in regard to its usefulness, it is the best catalog I have ever written. The outside garden has not been neglected and you should not neglect having a good one. I hope you will read the entire catalog and check portions that you will need to refer to later.

Friends everywhere, I greet you. May you each one be happy and well. strong in faith and courage; for you who have or may later pass thru the Garden of Gethsemane there is sympathy but still hope because no sacrifice will be in vain; for the world,—may there be Peace.

Yours for Victory,—soon,

Cecil Houdyshel

TERMS AND INSTRUCTIONS FOR ORDERING

Read the following carefully. It will avoid delay or misunderstanding.

Sales Tax. California customers must add 2½% for state sales tax.

Order Early. Late planting is less favorable but better than not at all. We will have many bulbs until June 1.

Remit with order by check or M. O. Currency or coins are acceptable but we are not responsible if lost. Stamps reluctantly accepted at 8% discount.

C. O. D. Please do not order C. O. D.

Postage prepaid on orders of \$1.00 or over. Under \$1.00 add 10c for postage and wrapping. **Insurance** 5c extra for orders up to \$500. 10c for orders \$5.00 to \$25.00. We advise insurance under present conditions.

Prices given are for one bulb unless otherwise stated. A dozen costs ten times the price of one. Six bulbs are sold at the dozen rate. If not otherwise priced, 100 bulbs are sold for the price of 7 doz., or 70 times the cost of one. Not less than 100 are sold at 100 rate. 50 are sold for the price of 4 doz.

Wholesale. Dealers send for our **Wholesale Bulletin**. Use your business stationery or otherwise identify yourself as a bonafide dealer.

Garden Clubs, who pool their orders for collective buying in quantity, send for our **Garden Club Bulletin**. We give you wholesale prices and discounts on a "Transportation prepaid" basis. This Garden Club Bulletin is available only to the official Purchasing Agent of actually organized Garden Clubs but not to individuals, even though Garden Club members.

Foreign Orders. Postage is prepaid if no greater than to our 8th zone. Best to remit a little extra. If too much we send extra bulbs.

Errors. Our packers make a few not many. We want to correct them. Notify us at once in case of shortage or error. **Unpack** your order as soon as received. Don't wait two weeks then tell us the bulbs were mouldy.

Partial Shipments. If all bulbs ordered are not included in the first package received, a colored slip informing you will be enclosed. Do not discard this with packing material. Pay attention and avoid correspondence for both of us.

Substitution. If out of a variety, we usually substitute one as near like it as possible, as good or better and of equal or greater value. If you do not approve this, say, "no substitution."

Guarantee. Our bulbs are true to name, and healthy. We do not, however, accept any responsibility for their performance since we cannot control the conditions of their growth. If, in your opinion, our bulbs are not up to our specifications, please notify us at once when you receive them. But do not return them until we explain, unless you are sure they are damaged or faulty. Customers sometimes err in judgement and one returned dwarf Baby Callas because they were small. Another returned Ranunculus because they were too dry and dead looking. For safe delivery, include insurance at slight expense.

Culture directions are not sent with bulbs as all necessary information is given in this catalog.

Catalogs. Spring Catalog is mailed Jan. 15. Fall Catalog Aug. 15. If no orders are received for two years, names are dropped from our mailing lists. If you are no longer interested in bulbs, permanently or temporarily, please ask your postmaster to return this catalog at our expense.

Correspondence. Labor is difficult to obtain both for field work and office and has doubled in cost. In order to get office help we have had to teach typing, filing, packing, etc. to inexperienced girls and they are doing well. I must write letters by long hand as copy to type. I am sort of Secretary-Bookkeeper-Advertising Manager-Field Foreman-Laborer and everybody kicks me around. Not much time to write letters and we need the office force to put up orders. Holidays have been moved, clocks made to tell the Sun he's a slo-poke but what we need is a little boon-dogling of the hours in the day. Twenty-four is not enough.

If information is needed, seek for it first in the catalog. Nearly always, it is there. Order only from the current catalog. If the bulb is not listed we do not have it for sale. I like to help with your problems but make it easy and give full particulars. Enclose self addressed post-card or if a longer reply is necessary, make out a list on which I can write yes or no, and send a self addressed stamped

make out a list on which I can write yes or no, and addressed stamped envelope.

GENERAL CULTURE DIRECTIONS

The best bulb soil is a rich sandy loam. Only a few, like Bearded Iris, prefer heavy soil. But nearly all bulbs do well in heavy soil, especially if plenty of humus is added.

All soils require the addition of large amounts of humus. You should compost all weeds, leaves and small branches. If possible, add manure to this and when well rotted and fine turn under and thoroly mix with the soil.

Fertilizers. Animal manures are the best. Use them with compost as explained. Do not use fresh manure except as a light mulch for certain growing plants and experiment on a few first as too much quickly destroys a plant. Do not add fresh manure or commercial fertilizer to soil just before planting bulbs or seeds. It would be as logical to give a day-old baby a tough steak, a piece of apple pie and two cups of coffee. Fertilize only healthy, thrifty plants. What would you think of a doctor who ordered a big meal for a sick man as a means of recovery?

Questions we are asked: May I cut off the tops of Daffodils (or Gladiolus, etc.) after they have flowered? How shall I treat my Amaryllis, Clivia, Calla or other bulbs after flowering?

The answers are logically determined by considering the annual cycle of a bulbous plant.

A dormant bulb contains a flower bud and short new leaves. There is stored up food in the form of starches etc, and also enzymes for digesting this food. While dormant, the stored up starches are turned into soluble sugar. Roots, buds and foliage begin to develop in their natural order and your care is rewarded. When thru flowering, the bulb has become smaller and is soft instead of firm and plump. This is a critical time. The bulb may appear at a pause for a short time but when a good root system has developed it will begin active growth. Encourage that. Give them food and water. Enough, not too much. An Amaryllis will often grow 6 mo. and a Gladiolus 3 or 4 after flowering. The longer you can keep it growing, the larger and better will be your resulting bulb for next year. The yellowing of foliage will signify the bulb has reached full development. If you do not feed and water your plants, pets, domestic animals and children when they are awake and hungry, they do not thrive. If you know how to make a husband happy (or a wife) you should know how to make a plant "happy." Don't "Love 'em and leave 'em," and over coddling is often as bad as neglect.

Depth and Spacing often cause too much concern. Bulbs usually have sufficient adaptability to do well under widely varying conditions. In a general way, bulbs should be about two or three times their diameter apart. Small bulbs like Ranunculus No. 3 may be covered 1"; bulbs the size of a Daffodil covered 4" to 6". Bulbs with a heavy top need deeper planting to maintain an erect position. Planting in light sandy soils should be deeper than in heavy soils. In very cold climates, deep planting protects bulbs from damage from frost. Few bulbs are too finicky about their depth and many of them have the ability to correctly adjust themselves to the most favorable depth if left in one place a few years.

Alibis. Many amateur growers refuse to accept responsibility for their failures when they result. They blame the bulbs, but not themselves, the weather, their soil or pests. Therefore they do not learn from the best teacher, experience. Luther Burbank said, "A failure is an accomplishment." It is, if you learned by it.

ACID AND ALKALINE SOILS

Most plants thrive in neutral, mildly acid or mildly alkaline soils equally well as they have a wide range of adaptability. But a few require alkaline soils and some will thrive only in distinctly acid soils. In the latter class are included Rhododendrons, Callas and most shade loving plants.

The acid-alkali balance is expressed in pH units. pH 7 is neutral. Below that the acidity increases, above it the alkalinity increases.

Soiltex Outfit. This little testing kit will enable you to determine the pH of your soil. No chemical knowledge is required. Directions for use are included with lists of plants and their preferred pH. Price \$1.00 postpaid.

If soils are too alkaline or if plants to be grown in them require more acidity the best remedy is to incorporate much humus. Peat is most acid usually, though some American peat has become alkaline. Oak leaf mould is more acid than other leaf moulds. Use much leaf mould or peat (preferably imported) for *Gladiolus*, *Callas*, *Arums*, *Lilies*, *Haemanthus*, *Nerines*, *Orchids* and all plants that require acid soil.

Peat. We can send you a bale of excellent, acid reacting horticultural peat for \$5.00. Express charges collect. Don't use poultryman's peat. 10 lbs. \$1.00.

Rootone. We know of really remarkable results from the use of Rootone, a plant hormone powder that induces quicker rooting of cuttings and bulbs and sprouting of seed. As a result of its action, bulbs make a more vigorous root system quickly and thus the flowers are earlier and larger; the foliage stronger and when dormant the bulbs will be found to be larger and with greater increases in number. We suggest you touch the base of a bulb to the powder until covered by a thin film. Or you can apply it with a soft brush or from a salt shaker after bulbs are set. Dip the end of cuttings into the powder. Tumble the seeds in a jar or in the seed envelope with the powder. When the seeds are coated, roll them out and save remaining powder. Treat your victory garden seed. Rootone will treat from 60 to 300 times its weight of seed and thousands of times its weight of bulbs.

We especially advise its use with spring planted *Amaryllis* bulbs as at this time the roots are likely to be absent or mostly dried up.

Price. One-half ounce is a good supply. Mailed, postpaid for 50c. Use directions above. We can supply in 1 lb. cans (for extensive plantings) at \$5.00, postage 15c extra.

Vitamin B-1 is a useful stimulant for plants, we believe. We have soaked the roots of *Amaryllis* in flower in the solution, when transplanting and the flower was uninjured, lasted for days and seed were ripened. We have used it successfully with other plants in transplanting. Price. Bottle of 100 tablets, 75c.

Directions for use, applying only to our own tablets. In transplanting bulbs or any plants, loose roots, dissolve 5 tablets in 1 gal. water. Soak roots in this 15 to 30 min. Pour solution around plant when set.

To stimulate growing plants, for the first application dissolve 1 tab. in 2 gal. water. For succeeding waterings, use 1 tab. to 4 gal. of water once a week.

Warning. Do not soak dormant bulbs in vit. B-1. It rots them.

BULBS AS POT PLANTS

Bulbs are the most desirable of pot plants and may be easily forced in the living room or kitchen. Their response is much more rapid than that of a recently potted non-bulbous plant because of their storehouse of food and energy in the bulb. The reward is often an outstanding flower in a few weeks.

It is good time, now, to start the bulbs recommended for late winter flowers and in early spring before you have them outside. Indeed, *Colored Callas*, *Gloxinias*, *Tuberous Begonias*, *F. L. Caladiums*, and some others do better if started in Feb. than in Dec. *Amaryllis* have had their rest and Rootone will help renew roots. Most of the bulbs can be started up to early spring but early potting gives earlier flowers and more satisfaction.

Altho your Victory Garden or lack of labor and time may force a slight reduction in your outdoor flower garden you can find a recompense by growing more potted bulbs in the house. You should have bulbs in every sunny window in the house, where correct heat is maintained. They cheer the day, lighten labor and give happiness to all.

Skill and experience will be valuable to your success but our careful directions will help you attain it and you should be able to achieve a satisfactory success from the start if you are willing to study the culture advice in all parts of this catalog carefully and apply it.

Amaryllis, or *Hippeastrums* are our favorite pot plants. They are the most universally popular of all. In the same family, *Amaryllidaceae*, the following are most eminently satisfactory when grown in pots: *Agapanthus*, all species, but especially *Mooreanus* minor for small pots and *Orientalis* for tubs. **Amarcri-**

num, (not so likely to bloom until well established.) *Clivia*. Order one in bud (75c extra) and you have a flower in 2 or 3 weeks, often less. *Haemanthus*, especially *Katherinae* or *Multiflorus*. They are worth their high price. *Hymenocallis* all force easily from the varieties of *Ismene* to *Spider Lilies*. Don't try to rush the *Ismene*, start them "easy." They do not force as early as the two *Spider Lilies* which are usually evergreen. *Elisena longipetala* is very closely related and its culture in pot or garden is like that of *Ismene* and *Spider Lilies*. *Sprekelia formosissima superba* is an ideal pot bulb with evergreen foliage and rich blood-red flowers of unusual shape that flowers at unexpected times thru the year. We suspect that if you let it get on the dry side then water freely and often it may produce flowers, like some other *Amaryllids*. But we have not tested this. I do know that a marked bulb bloomed 3 times in 6 months in our field. *Tulbaghia*, nice in pots but do not flower until well established. Thereafter it seems to flower the year around from good clumps.

In the other plant families one may pot now the summer growing *Oxalis* listed in this catalog. The three varieties are all very lovely. The species *O. crassipes* is evergreen and blooms the year around but is not as pretty as *O. lasiandra* or *Deppei*. These must be started "easy". Too much heat and moisture will rot the bulbs.

Orchids do not give immediate results. Usually *Cypripediums* will give their exquisite flowers within two years but we have one now flowering that was divided and planted only 9 months ago. *Epidendrums* flower when a small clump is made. We do not recommend *Bletilla* for pots tho others say they will force. But our customers do report success. They are hardy tho and nice in garden.

Callas are indispensable in pots. It is too late to start the larger whites but a good time to pot *Baby* and the *Colored Callas*.

Billbergias, **Tuberous Begonias**, **Fancy Leaf Caladiums**, **Gloxinias**, **Anemones** and **Ranunculus** all deserve your attention. The last two give gorgeous flowers and are so inexpensive that all should grow a few in pots and many in the garden. To encourage this and to make you acquainted with them we have cut the price of the stock on hand to below pre-war levels.

Amorphophallus reveri and *Sauromatum venosum* are two bulbs that will flower without being potted, tho it is usually safer and better to pot them. They may later be shifted to a shady place in the garden. They are better with only a little watering before the foliage appears after flowering. They will do better if shifted to a shady place in garden in the spring.

Potting Directions

The pot for a 2½" *Amaryllis* bulb should be about 7" diam. This size is about right for most bulbs of this size. Give larger bulbs a size in proportion. *Gloxinias*, *Tuberous Begonias*, No. 1 *Anemones* and *Ranunculus* will be fitted by a 4" pot but it is better to pot 3 in a larger pot.

It is most important that drainage be perfect and the soil of a friable texture that allows water to drain perfectly. Cover the hole in the bottom of pot with reversed bits of broken pots and on top of that small pebbles then coarse sand will help. An imperfectly drained soil often causes bulbs to rot before starting and if they start they do not grow and flower well. Yellow tipped leaves often indicate poor drainage. The pots should be clean and scalded.

The proper soil is a rich sandy loam with the addition of thoroly rotted leaf mould. Add peat or oak-leaf mould for acid loving plants. Use no fresh manure or other fertilizer at planting. Be very discreet even in using very old rotted manure. Rotted dairy manure is rather safe. A heaping table-spoonful of bone meal is good. Thoroly mix all ingredients.

Most small bulbs should be planted just under soil surface. An *Amaryllis* and most large bulbs may have 2/3 of bulb above surface. When placed, the soil may be settled by a thoro watering, once. After that no more water is usually needed until after growth begins, altho the soil should not become quite dry at base of bulb. A wet condition very long often rots a dormant bulb before they start, or later. The soil surface may appear dry and yet be too wet for starting bulbs at center of pot.

Most bulbs should have a cool room, about 60° while rooting. When a bud or foliage gives evidence that growth has started, bring the pot to living room temperature, of about 70° and water slightly. It is not time to water them freely yet. Do that only when flowering or in full growth. Do not overwater at any time. Sufficient time between waterings must be given to allow water to drain away, evaporate or be absorbed by roots so that air penetrates and bathes the entire root system. This is very necessary to plants and the roots need not be actually dry to permit it. But they must not be water logged. When in full growth and bloom feed the bulbs about every 2 or 3 weeks with very weak liquid manure. It should be only amber tinted, the color of weak tea. Proper feeding will result in luxuriant growth. Too much, yellows the leaves, because the root hairs are burned off.

It is very important to continue watering and feeding after bulbs are thru flowering. At that time they are rebuilding lost tissues, increasing in size, making offsets and finally constructing new buds for next season. At this time they will also store up food to support the early growth the next year. This is where most amateurs fail in getting results the following year. Some even write and ask me if they cut off the foliage and dry up the bulbs at once, after flowering. Plants are living beings. They feed, drink, breathe, grow, react to light and heat and die the same as you if not permitted to follow nature's way. If they do not succeed however, very many blame the bulbs. Even a Los Angeles physician, supposedly intelligent, wrote me that he was "telling everyone." A woman told me how well our Callas performed and the same items from a prominent Los Angeles firm were worthless. The funny thing was that this firm bought our bulbs. I had examined their bulbs and they were stored perfectly. You will succeed with intelligent care. Blame yourself or the conditions of growth when you have an occasional failure and you will thus learn. There is an element of chance in growing anything, but it is reducible. That makes it interesting. Match your skill against all unfavorable possibilities and learn to overcome them. That is your life problem also. There is a cause for everything. Find it.

ARRANGEMENT OF THIS CATALOG

is by Plant Families, not alphabetically. We also try to group more closely related plants together. Customers approve this plan because of increased information made possible. Only one customer has called for an index. But that is impossible as well as unwise. You need to read all the catalog. Many customers write us that they do; some read it several times. There is information on every page.

In the following lists, the genus,, (plu. genera) is mentioned first. After it, the species, (plu. also species) or horiticultural variety is named. Thus we list *Hippeastrum ambiguum* or H "Sibyl Houdyshel", tho it is more botanically correct to say *H. hybridum*, var. *Sibyl Houdyshel*. For the sake of brevity we shorten this. Please note the initial of the genus is used for the second and succeeding species. This H. may mean *Hippeastrum*, *Haemanthus* or *Hymenocallis* according to first species listed.

THE AMARYLLIS FAMILY - - - Amaryllidaceae

This family includes the bulbs from *Agapanthus* and thru *The Alliae*.

The American Amaryllis Society is an association of those throughout the world who grow Amaryllids as an interesting and intellectual hobby. An annual book "Herbertia" of about 250 pages is sent to each member. Therein is discussed the best culture methods; descriptions of new species; notes on Amaryllis in their habitat; reports on experiments in crossing, culture, propagation, etc. *Herbertia* is the essential reference book on Amaryllids. Beautifully illustrated. ted.

I invite you to send me \$2.00 for membership, for the year 1943. This will entitle you to vol. 10 *Herbertia*. This volume has been delayed in printing because of present conditions but will certainly be distributed before Apr. 1. After July 1, the price of the volume will be \$3.25 and the sale is restricted to current members of the American Amaryllis Society.

Because at present it is costing more than \$2.00 per vol. to produce *Herbertia*,

the annual membership fee must be raised to \$2.50. Therefore if you wish affiliation with this Society for 1944, send us your check for \$2.50. We hope vol. 11 can be published within the year of 1944. But if not, you will it least receive it at the earliest possible date.

Our *Herbertia* Editor, Dr. Hamilton P. Traub of the U. S. Dept. of Agriculture, now has charge of a Guayule Rubber Plantation in Calif. He is, no doubt, the greatest living authority on all Amaryllids. The Society is fortunate to have his devoted and gratuitous services. But we must accept such services as second to his great work in rubber production.

If you desire the earlier volumes of *Herbertia*, all can still be supplied except vol's 1 and 2 which are now out of print. Prices, vol. 3, \$4.25; Vol. 4, (double number), \$5.00; Vol's 5,6,7,8 and 9 are \$3.25 each. For sale only to current members of the Society.

Notice to all Members

The American Amaryllis Society is now incorporated in California since Dr. Traub has been sent to this state by the Government he serves. Owing to this removal and to the introduction of the zoning system in the handling of mail it is advisable to for you to send in your correct address. Please state if you have paid your 1943 dues and to whom paid. Send this to me, also your check if you have not paid. I may not reply but it will be correctly handled. I must explain that I am only a member of this Society and have no official position. I am only a self-appointed Promoter and unofficial Publicity Agent. That also is my highest ambition, viz. to make known to all who love Amaryllis, the opportunity to enjoy the advantages of the Amaryllis Society and to learn more thru *Herbertia*.

How To Grow Amaryllis. This discussion includes not only the Genus *Hippeastrum*, which recently botanists have changed to the old popular name of *Amaryllis*, but will include the entire family.

Certain members of this family bloom early in the fall. It is better to order them from this catalog. Then they will be delivered as soon as dormant (about June), which is the best time to move and replant. These are *Amaryllis belladonna*, *Hippeastrum advenum*, all *Lycoris* species, *Nerines*, *Sternbergia lutea* and *Haemanthus coccineus*. *Leucojums* also are sent in June.

Hardiness. Most Amaryllids listed are hardy in the deep south. Amaryllis *belladonna*, *Amarcrinum*, *Agapanthus*, *Cooperia*, *Crinum*, *Habranthus*, *Hymenocallis*, *Lycoris*, *Pancratiums*, *Sprekelia*, *Sternbergia* and *Zephyranthes* are hardy on the coast to North Carolina and to Vancouver. Inland, most of them have been grown with protection at Washington, D. C., parts of Arkansas and the middle south. In this border line, plant deeper and in a protected location like the south side of house or wall. Mulch well in winter or cover with cold frame. *Hippeastrums* (Amaryllis) are unlikely to survive in the outside garden at temperatures below 24°, however, an Oklahoma customer reports that she has grown them for years by planting deep. She covers with 4" of soil above the top of bulbs, in a well drained, protected situation. In the winter the bulbs are further



SELECT STRAINS HIPPEASTRUM

protected by a mulch of leaves and branches. Altho the winter temperatures approach zero, the bulbs survive. They would survive, if not frozen. But the bulbs should be established and well rooted by a seasons growth. To do that, pot the bulbs in the fall and shift in the spring to outside garden. Try a hardy sort first like *A. Johnsonii*.

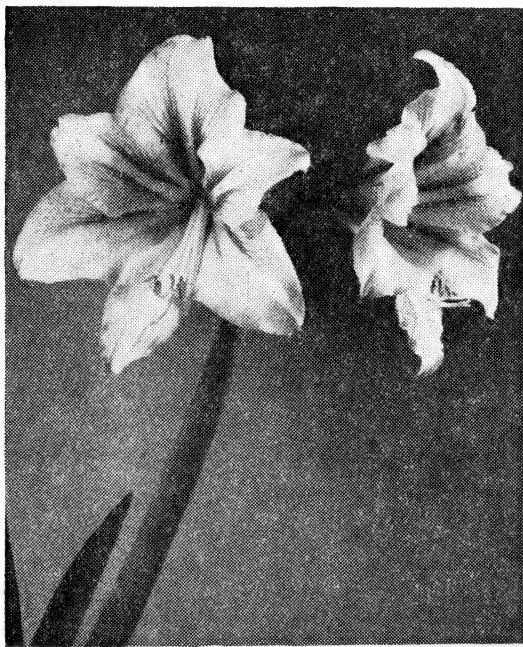
Winter hardy in the north are *Crinum longifolia*, *Lycoris squamigera*, *L. incarnata*, and *Leucojums*. Only slightly less hardy are *Crinums moorei*, *Cecil Houdyshel* and *Powellii*. In milder sections, plant deep and mulch well with brush.

Most Amaryllids are gross feeders. Properly used, animal manures are best. Apply light top dressings of manure a few times each season to well established bulbs only but do not give too much at a time. Do not use manure on bulbs of Lily or Iris families.

Amaryllis that are dormant thru the summer like some *Nerines*, *Lycoris*, *Amaryllis belladonna*, *Hippeastrum advenum*, *Sternbergia*, *Haemanthus coccineus* etc. are better if not watered when dormant tho a little is not usually fatal.

Amaryllis (or Hippeastrum) Hybrids

Because some think they cannot grow these successfully and get flowers after the first year we shall give you most explicit directions. If you follow them carefully, you will have flowers the first year followed by a better, larger bulb for the following year, that will give more and larger flowers and produce offsets.



HIPPEASTRUM AMBIGUUM HYBRID

hastens bacterial action if rot develops on account of poor drainage, etc.

Don't forget that Amaryllis must grow after flowering. That is where most failures are caused. They should have about 6 mo. of active growth, — longer if they will. Feed liberally.

It is excellent practice to shift bulbs to the garden when settled warm wea-

First, read our Potting Directions on a preceeding page and all general culture directions. There is only a little to add to that, and that is given here with a little repetition for emphasis. Have pots and soil ready. Use no peat for compost as Amaryllis like a neutral soil around pH 7. But one should use thoroly rotted dairy manure and leaf mould or fine rotted compost. Early ordered bulbs will usually have some roots attached. Whether they do or not, Rootone liberally sprinkled on the base and roots after moistening them will aid the bulbs in more rapid rooting. Give a little time for some of it to be absorbed. Then pot, being careful to spread out the roots.

After once watering, set the pots in a lighted room, with a temparture around 50°. When growth begins increase the temperature by steps up to 70°. Amaryllis like a warmer temperature than many bulbs and they develop more rapidly with warmth. When well rooted and growing well, a day temperaure up to 80° will hasten blooming. But it also

ther arrives. A greater range for root development is provided. Don't forget them tho. Rains are seldom sufficient thruout the summer. Before shifting, water well and allow excess to drain completely. Thus the lump off earth and roots may be removed entire and without breaking up which would set the bulb back. Save all roots possible when repotting.

Seedlings. We do not sell seed. We never have enough of the best and don't like to sell anything else. You should grow your own seed, make your own crosses from the flowers you like best. Plant Breeding has reconstructed nature's gifts and made them more beautiful or more appetizing, digestible and nourishing as food. Genius is not required and any one can make plant breeding an interesting and useful hobby. For *Amaryllis*, we suggest you start with a dozen, more or even less, of our Select Strains bulbs. Cross or self pollinate only the best. To do that, place the powdery yellow pollen from the bursting antlers on tip of stamens (there are 6) on the three pronged stigma in center of flower. This fertilizes the flower and a seed pod should result.

Plant fresh seed on surface of good potting soil, in pots or boxes and cover with $\frac{1}{2}$ " soil. If soil is well moistened before planting one can cover pot with a pane of glass to preserve moisture and seed will usually come up with no further watering. Seedlings grow the year around until flowering which they often do when two years old. When seedlings become crowded, transplant to pots, individually or in groups but always give them room to grow. They will grow faster outside in warm weather 30% shade, but require frequent irrigation.

Quality of *Amaryllis* Flowers

Tastes differ but it does not follow that because a few like a flower with a pronounced green throat that such a flower is ideal. We shall try to describe the ideal of *Amaryllis* experts.

The petals should be broad and rounded with a short tube and wide open flower. This type is called the Leopoldi type because it contains the species *Leopoldi* in its ancestry.

There should be no twisting of the petals. They should be of firm texture, smooth, not ridged, and edges plain, not toothed or irregular.

There should be little or no green in the throat or other part of the flower. The colors should be lively and pleasing in a great variety of tones which are never dull in effect.

The nearest approach to the ideal can be found in our Select Strains. But because we describe an ideal, one must not expect every bulb to produce an ideal flower. Some of them are nearly perfect and such bulbs are really worth \$5.00 each and up. We have paid as high as \$25.00 for especially fine bulbs.

The Select Strains hybrid *Amaryllis* contains many bulbs really worth several times their price of 75c ea. You will find no such types in the dime or department stores at a lower price. But we do not claim that other reputable firms do not also offer equally high class bulbs. We only claim that none are better in the same price range.

PureWhite *Amaryllis* hybrids are very rare and the bulbs sell for high prices. They are more tender and difficult to maintain in good health and usually die in a few years. They can only be grown in pots, not in the field. It is better to be contented with "Near whites" or "White Backgrounds". They are healthy, easy growers and give the effect of white flowers. The variety "Sibyl Houdyshel" is a very nice near white, altho it costs more, (since it must be propagated by off-sets instead of by seed), one sometime gets an equally good flower, or even better, from the Ambiguum hybrids or the White Backgrounds. The White Backgrounds are the Leopoldi type.

Pink *Amaryllis*. The color "pink" is as variously interpreted as an Egyptian tablet in hieroglyphics. "Pink" means any red color of low concentration and high brilliance. Ours include rose pink and almost every possible tone of pink. Don't specify the shade or tone. Ours are mixed, every one different.

The Diener hybrids sometimes disappoint customers who expect a Leopoldi type flower. They are an entirely different, the Equestre type, with long, narrow pointed petals. We do not agree with the claims made for an everblooming ha-

bit or for flowers up to 16" diam. But they are interesting and fine. They bloom most profusely and often out of season. There are often 6 flowers in an umbel. In order to get the huge flowers I believe it will be necessary to disbud. I suggest the removal, early, of all but two flower buds in the umbel. Naturally, the flowers of a recently moved bulb are smaller than from one long established.

List of Amaryllids

Agapanthus. The name means Love Flower. Blooms in late spring and summer. Large, most attractive flower umbels on tall, erect stems. Universal favorites in south and easily grown in north in tubs or buckets, wintered in basement. Half shade to full sun.

Agapanthus Africanus, var. Mooreanus minor. A dwarf form especially suited to pot culture. Lovely blue umbels on 18" stem. Likes good garden loam, partial shade. Deciduous, but should not be entirely dry over winter. 35c ea. 4 bulbs for 6" pot, \$1.25.

A. longispathus. New species. Flowers resemble *Orientalis* but blooms more profusely and is more graceful. 75c ea. 3 for \$2.00.

A. orientalis (umbellatus)
Blue Lily of The Nile. Our variety is an especially fine one with deep blue flowers on a tall stem. Many flowers are produced in spring and thru summer. 50c. Extra large roots, 75c.

A. orientalis, var. albidus. Has pure white flowers. \$1.00.

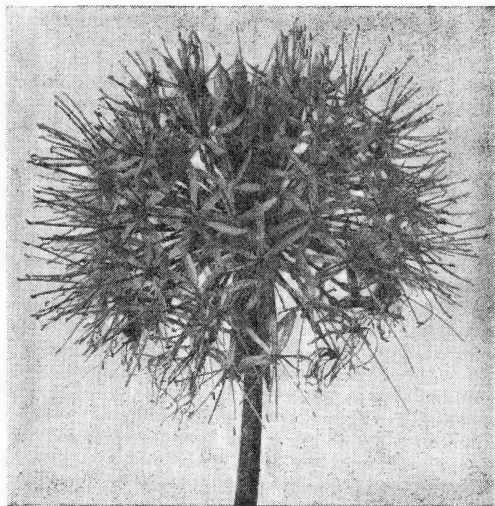
A. pendulus. Entirely new and distinctly different species of greatest value. Flowers in shades of blue and purple in a great variety. Flowers long, tubular and pendulous when open. The umbel is smaller but most graceful. Like "mooreanus minor" it is deciduous and should be ordered before April 1. \$1.50.

Amarcrinum Howardii. A bi-generic hybrid between *Crinum moorei* and *Amaryllis belladonna*. Flowers, pure pink, produced most any time of year. \$1.50 ea.

Amaryllis belladonna. Name recently changed to *Callicore rosea* but present nomenclature of the varieties has not yet been adapted to this. The popular names, Surprise Lily, Naked Lady Lily and Lady Godiva Lily are descriptive of the fact that the flower stem produces its exquisite umbel of pink flowers, unclothed by any foliage. The flowers have a rich, delicious and distinctive fragrance. A standard cut flower in the south.

Culture. The bulbs bloom here from late July to about Oct., depending on variety and culture. To make them flower later withhold water. Later, foliage appears and grows all winter until about June 1. They should be dug and moved in July for best success. Unfortunately, it is customary to order these in the fall when they should be established and ready to flower. As a result, they usually flower soon after planting but may skip the next year. We ask you to order now or before June and we will deliver them at exactly the right time.

Plant bulbs at once when received, preserving all roots. Top of bulb should be a little below surface, and deeper in colder sections. *Amaryllis* are semi-hardy



HAEMANTHUS KATHERINAE
(See Page 16)

and foliage frozen by a temperature of 15° easily recovers. With proper protection they may be grown as far north as Washington, D. C. or Vancouver, B. C.

They are not very successful as pot plants but bulbs bloom the first year usually and one flower stalk is worth the price of a bulb. Planted in a bucket or tub and wintered in a basement window I believe they would succeed. They need water all winter, but a cool temperature.

Amaryllis belladonna major. Earliest and largest. Pure pink. 35c. Large, 50c. Jumbo, 75c.

A. belladonna minor. White throat, later flowering. 60c.

A. belladonna var. Ethel. This, our seedling, is probably only a good variety clon. Dark rose, with white throat which turns rose. Late. Very beautiful, \$2.00.

Bravoa geminiflora. Mexican Twin Flower. Plant and bulb resembles Tuberosa and is related. Twenty or more coral red flowers are "twinned" on a 20" stem. Culture like Tuberosas. 40c ea.

Chlidanthus fragrans. Golden yellow flowers in spring. Entrancing, spicy fragrance. Three or four flowers in an umbel on a 10" scape. Plant 3" deep, in full sun. M. 15c. L. 25c. **Special.** Planting stock. Some may flower. \$4.00 per 100. 50 for \$2.50.

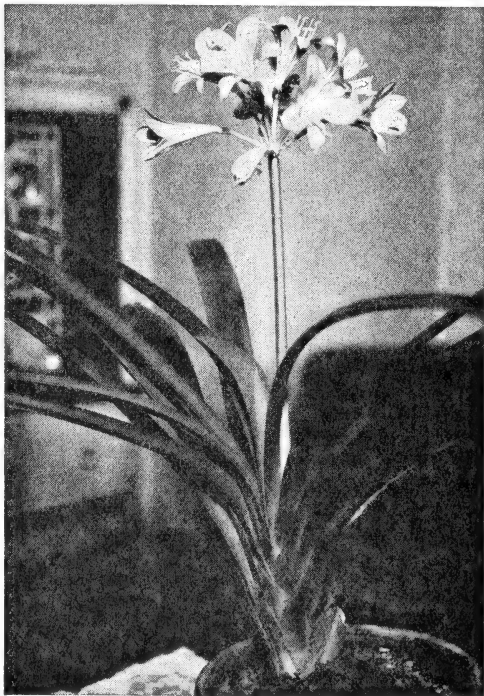
Clivia. An aristocrat among bulbs. They have always been expensive because of their slow increase by division and the fact that seedlings do not flower until 5 to 7 years old. Our method of culture in the ground under lath or Avocado trees instead of the usual pot method, gives more space for root growth and hence more rapid increase. Thus we were able to lower the prices.

The flowers are borne in a large umbel, often 20 or more, on a scape that lifts them above the foliage. The colors are in tones of orange, from yellow to red, in the hybrids. Their beauty is unsurpassed. Decorative seed pods follow the flowers and these remain a full year, turning red in late winter. The plant is decorative in all seasons.

Culture. They are usually grown in pots, even in the south, as more perfect foliage is thus possible, and when in flower one wants them in the house. We grow them in a lath house, lath spaced ½" apart and in garden under Avocado (evergreen) trees. They must have shade with only a few flecks of sunshine but plenty of light and air.

In pots, the plants must have perfect drainage and a good friable loam. Use about the same soil as for Amaryllis. For large plants use a 10"-12" pot or even larger. Give smaller plants 5" to 8" pots. Do not trim living roots, but crowd them all into pot. They flower better when root bound. pH7 is about right.

Clivias are evergreen, with deep green, strap-shaped foliage. They must never be allowed to lose the foliage. Encourage growth through spring to fall with plenty of water and frequent feeding with manure water. The plants should rest a few weeks in



**CLIVIA, RECENTLY RECEIVED,
BUDDED PLANT**

winter until about late February. At this time reduce the water but do not allow leaves to wilt. Hot winter rooms are very bad. Keep them cool, not over 60° or 70° nor under 35°, although ours are not injured out doors by temperatures as low as 26°. Give more water in late Feb.

No one can guarantee a *Clivia* to bloom. The only sure way is to order one in bud to be delivered at the proper stage. This requires more careful handling and packing costs more. We have had 100% success in handling plants this way.

***Clivia miniata*.** Wide open flowers of soft yellow orange. It is first to flower, late December to February, the hardiest and easiest to grow. Prices \$1.00 and \$2.00 ea. The \$1.00 size often flowers but is not so sure. We can furnish plants with bud, the only sure way to have a flower the first year, for \$2.50. But order at once for a flower. Small plants, 50c.

***C. miniata* hybrids.** These are rather close to *miniata*, similar in foliage, hardiness, wide open flowers, etc., but there is variation in color. Most of them are in lighter orange tones but a few are much darker. No choice of color offered, as they are not marked. They flower about March. Three blooming sizes at \$2.50, \$3.00 and \$3.50 ea. Small plants, \$1.00. Very often plants moved at this time do not flower the first year unless already budded. We will ship plants with bud, sure to bloom in two larger sizes for \$3.75 and \$4.25.

***C. nobilis* hybrids.** A fine European strain. Foliage broad with rounded apex. The large flowers range from apricot-orange to red-orange. Large plants, \$10.00. In bud, \$12.00.

N.B.: Please cooperate and do not state color preference in *Clivia* hybrids. No choice is possible. The plants are not marked as to color.

***Cooperia pedunculata*.** Texas Rain Lily. Close to *Zephyranthes* but larger. Lovely white flowers appearing after rains in summer. Hardy except in far north. In central sections it may be planted to 6" deep for frost protection. It may be dug and stored over winter in north. 15c.

***Crinum*s.** Species of this large genus are native to every continent. They are most attractive plants for their foliage alone and with addition of their fragrant, lovely flowers they are indispensable for southern gardens, for the landscape effect among shrubs and trees. The flowers are useful for cutting and many florists use them.

Culture. The species *Longifolia* is hardy in milder sections of the north. There it should be planted quite deep in a protected place and mulched over winter. *C. moorei* and the hybrids derived from them, Cecil Houdyshel, Powell, etc., are only a little less hardy. Any *Crinum*s, except such tropical sorts as *Amabile*, should be hardy in the middle south where *Amaryllis belladonna* can be grown. In the north, even the largest sorts may be grown in an 18" tub and wintered in a basement.

While *Crinum*s prefer a deep rich loam, all will do well in heavy soils except *Amabile* and *Augustum*. All appear to do better with slight shade but with the exception of *C. moorei*, Virginia Lee and Gordon Wayne, they do very well in full sun. These must have considerable shade.

***Crinum amabile*.** One of the most beautiful. The freely produced flowers are crimson purple and possess the richest fragrance. Give them a rich, deep sandy soil, feed and water them well. Calif. winters are often too wet and cool for them, causing rot. They should be dug and heeled in a box of earth and stored under a roof. S. \$2.00. M. \$3.50. L., \$5.00.

***C. Americanum*.** Native to southeastern U. S. The species is variable and some forms do not succeed well away from their native swamps. We offer a form long grown in California, that does exceptionally well. Flowers bluish white. Increases by underground stolons, soon making a large clump. 50c.

***C. campanulatum*.** Belongs to the "Milk and Wine Lily" type. That is, the flowers are white with a bright rose stripe thru center. \$1.00.

***C. Cecil Houdyshel*.** Flowers, deep rose pink. One of the best hybrids, all qualities considered. It is the same cross as *C. Powell* but is much larger, more robust and instead of flowering in but a limited period it is almost a perpetual bloomer. Large bulbs often produce 7 or more flowers scapes in a year, the most profuse of all. Small bulbs, \$1.50. Good blooming size \$2.00. Jumbo bulbs weigh-

ing several pounds, \$3.50.

C. Ellen Bousanquet. Most outstanding. It is most surprising to see a Crinum with such dark, glowing wine red flowers. Very vigorous and easy. Jumbo, \$1.50. Large, \$1.00. Medium, 60c.

C. erubescens. Milk and Wine type. The center stripe is red-purple. 50c. Jumbo, \$1.00.

C. Gordon Wayne. (Our 1938 introduction.) Large pure white flowers. A seedling of Virginia Lee and thus is probably the first third-generation hybrid. Price \$6.00.

C. H.J. Elwes. Pink flowers of unusual beauty. \$2.50.

C. kirkii. One of the most desirable of "Milk and Wine" type. White flowers with red center stripe. The large umbels have many flowers open at one time. 75c ea. Per doz. \$7.00. Jumbo bulbs, \$1.25.

C. longifolia alba. (Syn. *Capense alba*.) White lily-shaped flowers. This is the hardest species, surviving the winters with protection if planted deep, as far north as Ohio. Better than "rosea." 50c. \$4.00 per doz.

C. longifolia rosea. Pink flowered form. 60c.

C. Louis Bousanquet. Very free flowering thru an unusually long season. Pink flowers on a very tall, erect peduncle. \$1.00.

C. moorei. Large pink, bell-shaped flowers in the fall, freely produced. The long neck of the bulb surmounted by rotated leaves give the plant great decorative value. Requires shade. Nearly as hardy as *longifolia*. 50c Jumbo bulbs, \$1.00.

C. powelli alba. Extra fine pure white. One of the most valuable and beautiful Crinums. 50c ea. Per doz. \$4.00. 25 for \$7.50. Jumbo \$1.00 ea.

C. Virginia Lee. (Our 1934 introduction.) Large pink flowers with white throat. A second generation hybrid produced by the cross Cecil Houdyshel x J. C. Harvey but reverting in many characters to its ancestor on both sides, *C. moorei*, in its necessity for shade, heavy seed production and mid-summer loss of foliage. These characters are also shared by its seedlings, Gordon Wayne and many not named. Price \$2.50.

Cyrtanthus. Close to *Zephyranthes*, but tender. Long tubular flowers in umbels from December to March. For the garden in the south. Nice pot plants in the north. We have some doubt about whether bulbs moved in Jan. or later will flower this winter. Give them a rich soil and feed well. Under good care they are usually evergreen. Full sun.

Cyrtanthus angustifolius. Orange red flowers. 75c.

C. lutescens. Bright yellow flowers. 25c.

C. mackenni. Ivory white flowers. 25c.

Elisena longipetala. Rare Peruvian amaryllid. Bulb and plant much like *Ismene* and culture the same. The flowers are more dainty and attractive. Pure white with long, narrow petals, giving a most graceful form. \$4.00.

Haemanthus. Blood Lily. I must admit a great love for this genus. Not only because of their rarity, but because of the unusual and distinctive beauty and their great diversity in form and growth habits.

Culture. They should be grown in pots except in climates like Florida and So. Calif. The soil should be equal parts of loam, coarse sand and peat or leaf mould made thoroly fine. Drainage should be perfect. A tablespoonful of bone meal to each plant is useful. The species listed here require cool shade, little sun, but light. An abundance of water at all times when growing is required but rather on dry side during late winter dormancy. But not bone dry. When bulbs are received pot at once and water. Do not water much before growth starts. Altho a little warmth favors earlier growth and flowers it may be easily overdone. They grow in cool deep forest glades in the tropics.

Haemanthus Katherinae. The bright red flowers fill a large rounded umbel often 10" or more in diameter. I have counted nearly 125 in an umbel, the broad banana-like foliage droops gracefully into an umbrella form. Scarlet seeds follow the flowers. A plant in flower is an unforgettable sight of tropic beauty. The entire plant is of quite large proportions, the foliage and flower umbel reaching a height of 30" to 36". Introduced from Natal in 1877 they are yet rare.

There are certainly not many hundred in the United States.

There is a short dormant period between January to March. That is the only time they can be moved. We have entirely sold out our smaller plants and have only extra large ones for \$10.00 ea. These should have a 12" to 16" pot.

H. multiflorus. Not exactly a smaller edition of Katherinae but smaller and much like it. The umbel is nearly as large, composed of 60—100 blood red flowers. It is said that plants in bloom have sold for \$25.00 in flower shops. The bulbs have a little longer dormant period but should be ordered early, not later than March usually. Give them a 10" to 12" pot. Blooming size, \$3.00. Larger bulbs for \$4.00. Larger sizes are more sure to flower.

H. puniceus. Small, evergreen plant, very easy in culture in a pot or under a tree. Hardy to 28°. Very pretty foliage. Small umbel of scarlet flowers, on 12" mottled stem in late winter to early spring. Decorative red fruits. Delivery any time of year. \$2.75.

Hemerocallis. Daylily. The flowers range in color from dark bronzy red, thru pastel tones of pink to orange and yellow. They are born on a branching scape well above the foliage.

The Greek name, meaning, "beautiful for a day," refers to an individual flower. But these are so freely produced, thru a long period that "beautiful every day" would be more apt, as a collection of several sorts show masses of flowers thru-out the spring, summer and fall and here we often have some winter flowers. The modern sobriquet of "The Perennial Supreme" is well deserved.

Culture. While their beauty is their greatest recommendation, their easy culture and hardiness adds to their desirability. They will succeed where any plant will succeed. I have known abandoned plants here, where we have arid, hot summers, to persist for years. But that must not be their fate. They grow well in full sun. Slight shade is even better. If given constant moisture about their roots, preserving this and coolness of the earth with good mulch, the plants are ideally situated and respond with generosity. They are hardy even in severe winters in the north. They are fibrous rooted, not bulbs, and must be planted at once when received. Altho they can be moved any-time, it is better to ship from late fall to early spring, which we do.

In these war times, when it is difficult to get labor for maintenance of extensive gardens and landscaping, one solution is to plant Daylilies extensively. They are an almost perfect border or landscape plant, never have to be dug and re-planted. All that you must do for them is, keep weeds down and water. They will even choke out most of the weeds. A heavy leafy mulch helps keep weeds down.

In Daylilies, the sepals are colored and petal like and are an essential part of the floral display.

Hemerocallis calypso. Large, fragrant lemon yellow flowers, June to Aug. 3½ ft. tall. 30c \$2.50 per doz.

H. Crown Prince. Similar to Mikado. June to Aug. Special. 20c. \$1.75 doz.

H. Dauntless. Pale cadmium yellow, greenish throat and delicate fulvous red in center of petals. 2½ ft. June-Aug. A standard for high quality. \$1.25.

H. Florham. Still popular old hybrid. Large, golden yellow flowers. May-July. 50c.

H. Geo. Yeld. Very large flower on 4 ft. stem. Blend of buff, apricot, orange and terra-cotta. 75c.

H. Gold Dust. Small early. Empire yellow. 50c.

H. Kwanso. The Double Orange Daylily. Red and orange. 20c Special 3 for 50c or 8 for \$1.00. \$1.25 doz.

H. Linda. A lovely Daylily. Petals, ruffled golden yellow flecked with cinnamon, with a rose zone. The sepals are lighter, pure yellow. \$2.00.

H. Margaret Perry. Brilliant orange-scarlet. 4ft. July-Aug. 35c.

H. Mikado. Orange with mahogany-red zone. A favorite. 3 ft. May-July. 50c.

H. Radiant. Rich orange. 50c.

H. Rosalind. (Clon. of *H. fulva rosea*.) Lovely rosy pink \$5.00.

H. Sibyl. Dark, purple-red petals with lighter sepals. \$4.00.

H. Soudan. Lemon yellow. Broad wavy petals. 3 ft. June-July. 50c.

H. Vesta. Deep orange, with gold sheen. May-July. 50c.

H. Vulcan. Large, darkest maroon red. Rare. \$2.25.

H. Wau-Bun. Large, apricot sprinkled with fulvous red. Top rank. \$1.00.

Hippeastrum or Amaryllis

Botanists have recently changed the name of *Amaryllis belladonna* to *Callicore rosea* and of *Hippeastrum* back to the old popular name, *Amaryllis*. To avoid confusion we hold to the old names but mention the new ones. Before we adopt the new names an authoritative writer must harmonize the new nomenclature so that genetic and specific terms agree in gender, etc. Some must be changed as *Callicore rosea* "rosea" will not do.

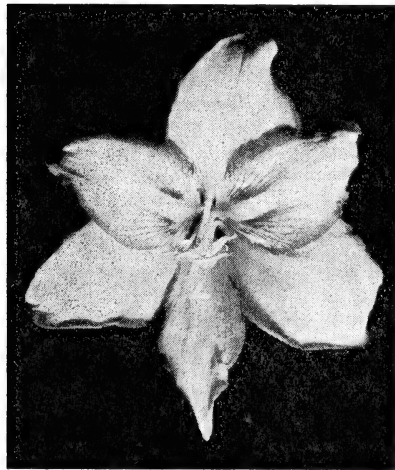
Hippeastrum Ambiguum hybrids. This is an excellent strain (our own) of near white *Amaryllis*. They are the *Solandriflorum* type and usually fragrant. Very hardy, good growers. \$1.00 ea. 3 for \$2.50. Extra large bulbs, \$1.50 ea.

H. Hybrids. Select Strains. Selected from the very best available strains. Leopoldi type, with smooth heavy texture, wide petals and few faults. Since they are seedlings from the crossing of excellent parents, every bulb is different and countless tones of colors may be expected from self reds, scarlets, pinks, others with stripes and all sorts of markings to almost white. These have been divided into three color classes but a perfect division is impossible as a few bulbs will not be in flower when marked. Thus one sometimes gets a colored flower among the "White Backgrounds", but all will be good.

Prices: White Background, the most popular color, Pink or Assorted Colors are 75c ea., 3 for \$2.00. This year we have very few Red at 85c ea. Assorted Jumbo bulbs, \$2.50 ea. In ordering Select Strains mention only color classes wanted but do not say rose pink or salmon as we have only assorted pinks.

H. Dieners Posthumous Hybrids. These are Diener's latest, grown from seed of his own crosses and planting. The colors are his best, a few being almost pure white but scarlet tones prevail. They are the Equestre type. Assorted colors only. \$1.50 ea. Extra large bulbs, \$2.50.

H. ambiguum. Has a tall scape with an umbel of 5 to 7 flowers, pure white with lines of pink. Very sweet fragrance. Rare. These Costa Rican natives were brought to California before 1875. \$3.00. Jumbo bulbs, \$3.75.



HIPPEASTRUM SIBYL HOUDYSHEL

The following group belong to the sub-genus *Habranthus* and are sometimes listed as *Habranthus advenus*, *robustus*, etc.

H. advenum. Ox-blood Lily. This is a fall bloomer and winter grower. Small dark red flowers in an umbel of 7 or 8. Very hardy and will stand at least 12°

H. johnsonii. This old hybrid is one most often seen in southern gardens and is a favorite for potting. The rich deep red flowers, with broad, contrasting white band through the center of each petal, stand out in the garden. It is one of the hardiest, easiest to grow and most rapid in increase. 40c. Extra large, 50c. Jumbo bulbs, 60c.

H. Sibyl Houdyshel. Pure white with a narrow pink line on border, flushed and lined pink in throat. Very fragrant. Sturdy grower and propagator. Luther Burbank origin. One of the oldest American hybrids and as a distinct variety is rare and costly. Price \$6.00. No small bulbs sold.

McCann's Double Amaryllis. As double as a rose with often 20 or more petals. Shades of red or scarlet. This type is sometimes difficult to grow and your success is not guaranteed. Try very sandy soil. They do well in pots. \$1.00 ea.

below freezing. Probably safe to plant quite far up toward north. Plant 5" deep, full sun. It should be planted in every garden in the south and middle-south. On the coasts, north to Vancouver and N. Carolina. 25c ea. \$2.50 doz.

H. brachyandrum. Rare. Has a single-flowered umbel. Bright, deep, lavender pink. S., \$1.00. L. \$1.50.

H. robustum. Sometimes, in error, listed as *Zephyranthes*. Has one large lilac pink flower. 15c ea. \$1.50 per doz.

H. texanum. This name may not be correctly determined as we have two types. One has broader foliage and the flowers and shape of bulb differ slightly. Small plant, yellow flowers in mid-summer. State whether you want broad or narrow leaved type. Both for 45c. Price each, 25c.

Hymenocallis. This genus includes the Spider Lilies and *Ismene*. The *Ismene* is deservedly one of our most popular bulbs but few know that new improved forms and hybrids have been produced. The almost ethereal beauty and the fragrance of Spider Lilies is known by few.

Culture. *Hymenocallis* are hardy in southern gardens where temperatures do not go lower than perhaps 15° above. All do exceedingly well in pots or tubs. Both Spider Lilies and *Ismene* in the north may be grown outside in the summer and dug and stored in winter, the *Gladiolus* method. Glads themselves are tropical and no more suited for the north than these. The *Ismene* is even grown commercially in the north. Plant *Ismene* 4" deep, 6" apart. Smaller species not so deep.

Hymenocallis calathina. The *Ismene* or Peruvian Daffodil. Large white flowers, veined green with daffodil-like cup. Very fragrant. Jumbo size, 35c. Large 25c. M. 15c.

H. calathina minor. A very tiny *Ismene* not one-fourth as large as the type. Of interest at least to collectors, and useful in small arrangements. This name is our own for a plant sent to us by a collector. 60c ea.

H. calathina "Advance". 2' tall. Larger, whiter and more flowers. \$1.00 ea. The next four varieties are rare *Ismene* hybrids.

H. festalis. *H. calathina* x *Elisena longipetala* hybrid. A more graceful form and pure white. Exquisite. \$2.00.

H. festalis Triumph. A further improvement, with immense flowers. \$2.00.

H. Olympia. The largest of all *Ismenes*. A creamy white. \$4.00.

H. Sulphur Queen. *H. calathina* x *amacaes*. The yellow *Ismene*. \$1.50.

H. species No. 1. A small Spider Lily easy to grow in the south. In the north it is grown by the *gladiolus* method. Blooms more freely after large clumps are made. Plant close. Bulbs bloom easily in pots. 15c Special. We have a surplus of these rapid multiplying bulbs and will share them with those who appreciate. 75c per doz. 100 for \$2.50. Clump for potting, 25c. If you will pay express on 100 bulbs we will include many offsets and clumps.

H. species No. 2. Tropical Spider Lily. One of the best tropical species. Flowers large in a many flowered umbel. Fragrant and very beautiful. Will endure temperature of 20°, probably lower. Blooms well in pots or tubs. Can be dug and stored in north. 50c.

Leucojum aestivum. Quite hardy in north. Blooms early, often before snow is gone. Dainty white flowers, each petal tipped with a green dot. 10c. Per doz. 50c.

L. sp. unknown. Probably two species mixed. They have much larger bells and 5 to 7 in each umbel. Our best species. 20c ea. \$2.00 per doz.

Lycoris. Fall blooming amaryllid. Hardy well up into middle south. *Radiata* and *Aurea* do not lose their foliage at 20°, and might stand lower without injury. *L. squamigera* and *L. incarnata* are quite hardy in the north.

Lycoris incarnata. Flesh colored flowers with reddish markings. \$2.50.

L. radiata. Red Spider Lily. Very popular in the south where it is often called *Guernsey Lily*. But the true *Guernsey Lily* is *Nerine sariensis*, a bulb extremely rare in America. This is one of the south's very best bulbs. A bed of them in bloom will catch and hold the attention in any competition by other flowers. Large umbels on 12" stem of the most vivid coral red flowers with long undulated and reflexed petals and very long stamens. One of the easiest to grow. Hardy

to North Carolina. 25c ea. Jumbo size 35c ea.

L. squamigera. The famous **Amaryllis Halli**. The flower umbel without foliage resembles **Amaryllis belladonna**. Color, lilac pink. Plant 4" deep and mulch in the north. Every northern garden should have them. \$1.00. ea. \$10.00 per doz.

Nerine. One of the most beautiful of the **Amaryllids** but few know them. There are, or were good stocks in Europe, but very few in America. They are autumn flowering, beginning here with **N. filifolia** in September to October. **N. Bowdenii** in October to December. All our species, except **Filifolia**, proved hardy here when we had two weeks of temperature down to 20° and ice 1" thick. With deeper planting and in a protected place they would probably survive 16°.

Nerines like sandy loam containing much leaf mould. We add peat as they prefer and acid soil. We plant in full sun. Most species except **N. filifolia** and **Bowdenii** (which grows all summer) will become dormant about June and should receive no water until August. **N. rosea crispa**, a **Filifolia** hybrid, may be treated either way.

They are ideal pot bulbs. Three bulbs may be planted in a 5" to 7" pot and remain undisturbed for years. They resent being disturbed and if roots are lost, they seldom flower the first year. They bloom and grow better when pot-bound.

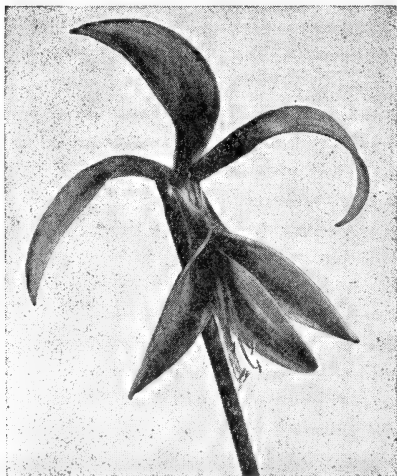
Give plenty of water when growing and occasionally liquid manure. Get the best possible growth. When tops begin to yellow gradually reduce water. When dormant, they should remain in the full sun but receive no water.

Nerine Bowdenii. About 10 or more large rose pink flowers in an umbel 9" across on a 15"—18" stem or scape. One of the most choice and very easy to grow. This species is an exception in the culture requirements of Nerines. As it is almost evergreen it can be kept growing all summer. They may be dried off a little after flowering but need no long dormant period. \$1.00 and \$1.50 ea.

Nerine Bowdenii, Pink Beauty. Larger and finer than **Bowdenii**. Grows luxuriantly and increases rapidly. One of our choicest bulbs. \$5.00.

N. erubescens. Tall umbel of carmine pink flowers, \$1.25 ea.

N. filifolia. A lovely little Nerine with evergreen, grass like foliage. The carmine pink flowers on a 12" stem are fine for cutting. Plant a dozen bulbs in a 5" pot as they flower better when crowded. The earliest, Sept. bloomer. Not because they are of little value but on account of their very rapid increase we are glad to be able to offer these at a very low special price. 15c ea. 6 bulbs for 45c. 75c per doz. 100 bulbs for \$5.00.



SPREKELIA FORMOSISSIMA

N. fothergilli hybrids. Colors from the deep red of **Fothergilli** to various pink tones, all especially fine. \$1.50 ea.

N. rosea crispa. Hybrid of **Filifolia**, but larger flowers on taller spikes. 35c ea. Extra large, 50c.

N. undulata. Rose pink. Edges of petals elegantly waved or crisped. \$1.25.

Pancratium maritimum. Fragrant white flowers, resembling **Ismene**, in late summer. Easy culture, plant 4" deep. 15c.

Polianthes tuberosa. Tuberose. Pure waxy white flowers on a 24" spike. Spicy fragrance. They perfume the entire neighborhood. Culture like glads. Plant 4" deep in full sun. Assorted varieties, single, double and variegated leaf. 75c doz.

Sprekelia formosissima superba. The Orchid **Amaryllis**. Crimson flowers of orchid like form. The flowers are twice as large as the common type and the color better and much more freely produced. It is probably a **Sprekelia-Hippeastrum** hybrid and may be Burbank's long lost hybrid "**Martinique**."

An extra fine pot bulb as it is a good winter bloomer. Culture same as *Hippeastrums*. Jumbo bulbs, 75c. L. 50c. M. 35c.

***Sterbergia lutea*.** A winter growing, bright yellow Amaryllid often called "Fall Crocus." Most desirable. Hardy in middle south. **Culture.** Plant 3" deep. It should be moved as soon as dormant in late spring or early summer as they usually flower too early in the fall for fall planting. Extra jumbo bulbs, 50c. L. 35c. Blooming size, 25c.

***Tulbaghia violaceae*.** Small cousin to *Agapanthus*. Mauve flowers produced throughout the year, a true perpetual bloomer. Foliage has garlic odor if bruised. An acquisition for pot culture. 35c. 3 (for a 5" pot), \$1.00.

***Zephyranthes*.** Fairy Lilies. The smallest Amaryllid, 6"—12" tall. Fine in beds or borders. Hardy in middle south. In north dig and store. They may be grown in pots. Give acid soil, sandy loam with peat or leaf mould.

***Zephyranthes ajax*.** Hybrid. Flowers, cream to dark yellow. 25c ea.

***Z. candida*.** Often called white Crocus. Best pure white. Evergreen. Very

TULBAGHIA VIOLACEAE

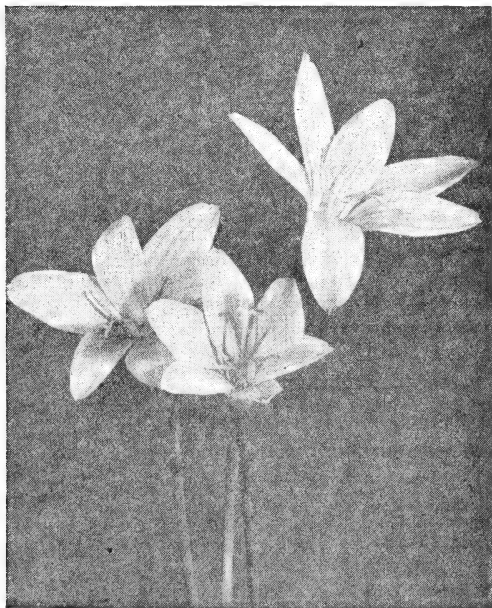
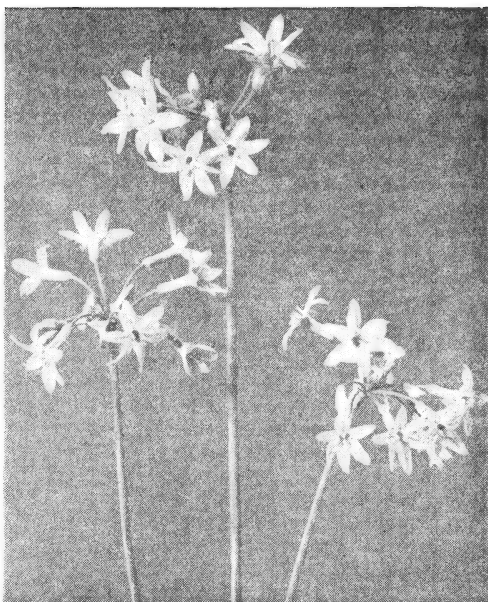
easy. Flowers profusely giving a bed with a snow white coverlet from mid-summer to early winter. Surplus sharing Special. 3 for 10c. 30c doz. 100 bulbs for \$1.25. 500 bulbs for \$5.00. 1000 for \$9.00.

***Z. grandiflora*.** Often listed as *rosea* or *carinata*. Pink. The largest *Zephyranthes*. 10c ea. 75c doz.

The **Alliae** or **Onion Tribe** are now placed in the *Amaryllis* Family. The following should have full sun. Sandy loam is best. Plant in spring, 2½" deep. In the north, dig and store bulbs over winter.

***Allium schoenoprasum*.** True Chives. Lovely little plants and lavender flowers. Flavor for soups, salads, etc. 2 for 10c. 6 for 25c.

***A. sp.* (probably *A. tuberosum*)** **Oriental Garlic.** A very ornamental species. Lovely white flowers. Truly delicious in salads, leaving no breath odor. As they are winter growers they must be grown in pots in the north and they are worth it for their lovely flowers and leaves for salads. 25c.



ZEPHYRANTHES GRANDIFLORA

IRIS FAMILY. Iridaceae

The Iris is the type plant of this family which includes the Gladiolus and many others that are listed in our fall catalogs.

Tall Bearded Iris. For many years we have been a source for these at the most reasonable prices to be found. But they have been offered in a brief leaflet, only to those who requested it. Consequently many customers know little about our Iris. We want all to try the newer, better Iris and so we present the full list here. No other price list will be sent out this year.

Culture. Iris may be moved at any time of year, when weather permits digging and replanting. The best time, many think, is soon after they are thru blooming. That is May—June in this climate. You may order at once and we will send them now or if you so specify we will send them after flowering.

Culture is most easy. Plant with roots spread out and rhizomes barely covered. They may be spaced 1 to 2 ft. apart. Give full sun exposure. They prefer heavy soil but do well in sandy soil. Neutral, pH 7 to mildly alkaline, pH 7.5 up is best. They should receive plenty of water until mid-Aug. About that time or a little later let them dry or bake. They need a hot-dry baking period of several weeks in order to flower well the following spring. Lacking this or when too crowded, too much shaded or as a result of poor culture at proper growing period, few flowers may result.

Definitions. Plicatas have white ground color, often tinted and with deep contrasting color flushing and bordering this, in fancy "stitching" or in dots and dashes. Blends have several colors deliciously belended and iridescent. Bicolors have upright petals or standards, (S.) and falls, (F.) in different tones, the standards lighter. Variegatas have S. yellow to bronze and F. in red to maroon.

Airy Dream. 42". Ruffled orchid pink. 40c.

Allies. Unusual color, smoke and wine blend. Fall bloomer. 25c.

Alta California. 48". Deep yellow, perfect in form. 20c.

Ambassadeur. 42". S. red violet; F. purple maroon. Late. 15c.

Arcadia Blue. Pale blue. Blooms profusely early, late and in fall. 15c.

Asia. 48". S. lavender; F. violet-purple blend. Late. 25c.

Attitash. Variegata. S. yellow, citrine and violet, blend. F. violet blend. 20c.

Beau Sabreur. Variegata. S. amber; F. velvety Vandyke red. 30c.

Blue and Gold. Blue, deep gold beard. 20c.

Blue Beard. Better, deeper blue than parent, (Crimson King). 25c.

Blue Velvet. 46" Intense, deep velvet blue. 25c.

Boadicea. Yellow and pink blend, flushed sky blue in center of F. 25c.

Bobby Houdyshel. Dwarf plicata. Ground color white, heavily flushed, stippled and feathered phlox pink. Beautiful as an orchid. 15c ea.

Buechley Giant. Perfectly formed, massive blue flowers; very tall. 25c.

California Blue. 60". Rich blue violet with glowing orange beard. Long blooming season. Deliciously fragrant. 20c.

California Gold. Tall. Large deep yellow. One of the best. 35c.

Canyon Mists. 40". Pink mauve self colored. Beautiful. 15c.

Cecil Houdyshel. Tall plicata. Ground color white, heavily flushed and feathered lavender. Hardy everywhere, 15c.

Cheerio. S. lustrous tan. F. brilliant velvety red. 40c.

China Maid. One of the loveliest new pink irises. Blend of pink, gold bronze and rosy lilac. 75c.

Claridad. 30" Best, true-blue iris. 20c.

Coronation. 36". Fine, large, deep golden yellow. 15c.

Cucamonga. Tall velvety blue-violet. Best qualities of Dominion and Mesotamica. 25c.

Delight. Tall, pink and white plicata. 15c.

Depute Nomblot. The perfect iris. S. copper. 25c.

Desirable. Very striking white and purple. 25c.

Dolly Madison. 36". Large flowers blended mauve and yellow. 20c.

Don Quixote. 42". Large, blended violet and brown. 15c.
Drorothy Dietz. Super-bicolor. S. white. F. pansy violet. 35c.
Druid. 36". Red maroon and brown. 20c.
Duke of Bedford. 34". Deep red violet. 15c.
El Capitan. 40". Manganese violet. Largest and finest. 20c.
Eleanor Brooks. Phlox pink and yellow plicata. Small lovely iris. 15c.
Eleanor Roosevelt. Dark purple. Free fall bloomer. 15c.
Fairy. Lovely white and blue blend. Honey locust fragrance. 20c.
Francheville. 54". S. fawn, tinted lilac; F. red purple, edged heliothrope. 25c.
Frieda Mohr. 42". Fragrant deep pink. 7-in. flower. One of the best. 25c.
Gaviota. Fine cream white, edged yellow. 15c.
Geo. Yeld. 40". S. apricot, flushed rose. F. crimson, edged buff. 15c.
Glowing Embers. 42" Rich bronze bicolor. 25c.
Golden Cataract. Deep golden yellow. Most profuse bloomer of all. Here it ceases only in mid-summer and mid-winter. 50c. Three for \$1.00.
Gold Imperial. 33". Deep yellow. Fall bloomer. 15c.
Happy Days. Our largest, tallest yellow. Most desirable. 40c.
Indian Chief. Huge, brilliant red tone, perfect form, free flowering. 25c.
Jean Cayeux. Gorgeous Havanna brown. 35c.
Jean Siret. Very early, yellow dwarf. Fall bloomer. 25c.
King Midas. Bicolor. Blended golden buff and garnet brown. 25c.
Lentz Schnee. White, tinted lavender. 15c.
Lient. Chavagnac. Dwarf. Violet. Fall bloomer. This and Jean Siret are very small. 25c.
Los Angeles. Tall, large plicata. Snow white, edged blue. 15c.
Loudoun. 30". Yellow, lined and dotted with chestnut. 20c.
Louis Bel. Pansy violet and violet purple. 25c.
Mabel Taft. Giant blue bicolor. 25c.
Mary Barnett. 42". One of the best light blues. 20c.
Mary Geddes. Blended soft pink and Pomeranian red. Dykes Medal. 30c.
Mary Gibson. 42". Early. Bronze, blended yellow. 25c.
Mary Senni. S. lilac flushed red brown. F. violet and lilac margin. 20c.
Mauna Loa. Tall and conspicuous. Reddish flowers. 30c.
Melchoir. 36". S. bronze velvet, F. velvety crimson violet. 6-inch flower. 20c.
Messaline. 38". Very large. Red brown and red violet blend. 15c.
Mildred Presby. 30". S. creamy white; F; velvety pansy violet, in striking contrast. 20c.
Mirasol. 30". Bright deep chrome yellow. Fine form. 30c.
Mme. Cheri. Large pink and violet blend. 20c.
Mme. Durand. Tan and mauve blend. 25c.
Moneta. Tall, red purple and violet bicolor. Off season bloomer. 25c.
Ningal. Magnificent blend of pastel shades in rosy buff. Hay's lilac to white with bright yellow in throat. 35c.
Numa Roumestan. 36". Intensely red. 15c.
Pacific. 36". Gigantic deep blue. A magnificent early iris. 25c.
Pale Moonlight. Very pale blue. 35c.
Persia. Bright blue blended with smoky blue, like a Persian rug. Fragrant, massive. 20c.
Picador. Variegata. Gold and red brown. 25c.
Pres Pilkington. 40". S. vinaceous buff over old gold; F. soft violet edged silvery brown. 15c.
Purissima. 44". The most perfect white. Gigantic flowers. 15c.
Querida. 42". Blended pastel tints, mauve to white. Fragrant. 15c.
Red Dominion. Deep red. One of reddest. 30c.
Red Ember. Very striking bicolor. S. pink! F. velvety crimson. 25c.
Rialgar. 22". Deep buttercup yellow and bronze. Very showy. 20c.
Rose Madder. This unique color. 20c.
Rosultra. 40". Early, bright rose. Fine garden effect. 20c.
Sacramento. A giant plicata like San Francisco but edged red purple. 25c.
Sandakan. Tan and purple bicolor. 20c.

San Francisco. 44". Finest, largest plicata. Lavender blue on white. Dykes Medal. 15c.

San Gabriel. 60". Pink lavender. Extra fine. Too early for east. 15c.

San Luis Rey. 38". Large red purple. 15c.

Santa Barbara. 40". Finest lavender blue. Very large, perfect form. 15c.

Sequoiah. 36" Reddish color. F. margined lighter. 20c.

Shasta. 40". Gigantic snow white. Perfect form. Early. 15c.

Sherbert. Old gold and brown. 15c.

Sierra Blue. 50". Clear soft blue. Enormous flowers on well branched stems. Perfection. Dykes Medal winner. 35c.

Sir Michael 48". S. clear lavender blue; F. red purple suffused copper brown. One of the world's best iris. 25c.

Souv. de Mme. Gaudichau. 36". Dark velvety blue purple. Fine form, early and fragrant. 15c.

Sunset Gold. Medium size, yellow. F. reticulated violet. Fall bloomer. 15c.

Susan Bliss. 40". Magnificent pink toned iris. 20c.

Tenaya. Dark red-purple. Very outstanding. 40c.

Theme. Blend of unusual colors. S. bronze-gray flushed lavender. F. bronze-tan and petunia violet. Fragrant. 30c.

Thos. R. Bacon. Soft ivory yellow blended gray to violet in center of falls. Very attractive. 25c.

Valencia. Ruffled, russet orange. 25c.

Valor. Blackish blue-violet bicolor. Large, rich, fine. 20c.

Wonder Child. Very large, deep pansy purple. Magnificent, profuse bloomer. Best dark iris. 30c.

Yves Lassailly. Very large white, suffused sky blue. 20c.

Yvonne Pellitier. Pallid blue-violet blending to light violet. 20c.

Iris Collection. One each of Alta California, Buechley Giant, Cecil Houdyshel, Cheerio, China Maid, Eleanor Brooks, Golden Cataract, Happy Days, Red Dominion and Sierra Blue. The ten varieties for \$2.85.

Assorted Iris for extensive planting. Older sorts that have become so cheap we cannot afford to list, with certain surplus quantities. Some are so nice we don't like to discard them. Price \$2.00 per 100. 500 for \$7.00. 1000 for \$12.00, by express, at your expense. They will not be sent by parcel post, so don't send postage.

Evansia or Crested Iris

Iris Nada. (Giridlian) A cross between Japonica and Wattii. Received a special award at International Flower Show in N. Y. Flowers white with yellow crests surrounded by light lavender. The lacinated style branches are dainty lavender. Petals are waved and frilled. The 3½" flowers are freely produced. Flowers are lasting when cut and useful in artistic arrangements. Price 75c ea.

Iris Wattii. Very many crested flowers, white with orange crest, borne in panicles from the center of a fan of leaves. The leaf fan tops a bamboo like stem from 2 to 4 ft. in height. 50c.

Nada and Wattii may be moved any time.

Gladiolus

In order to avoid damage by thrips to their flowers, Gladiolus should be planted early. In the north this means as soon as the ground can be worked and there is no more danger of its freezing to the depth of planted bulbs.

In California, southern Arizona to southern Texas, where winters are mild they may be planted between November 15 and March 1. There is usually no difference in the time of blooming between bulbs planted November 15 or March 1. They bloom together except when unusually warm winter weather causes earlier growth.

There is time yet to plant Glads in the south. In central to northern California and in coastal regions the limit may be extended to April 1. In the north, Glad planting may be the first garden activity in the spring.

To avoid damage to flowers by thrips, three measures are effective. Use all three. Plant within dates mentioned. Plant treated bulbs. Irrigate by overhead

sprinkling. We sprinkle ours 30 minutes every evening.

Treatment. Mix 4 teaspoonfuls of Lysol in one gal. of water. Or use a large bottle of Lysol to about 40 gal of water. Soak the bulbs in this solution for 5 hours. The solution may be used several times but discard it when one week old. This solution does not injure bulbs or delay their starting. In fact it hastens formation of roots. Other solutions usually retard growth. It kills thrips and disease bacteria. Do not treat recently dug bulbs. Our bulbs have been treated before we send them out.

The following treatment is claimed to be equally effective in killing thrips on the bulbs. Sprinkle Naphthalene flakes over the bulbs in a closed bag or container. Leave them closed up for three weeks then remove flakes and open.

Plant Glads 4" deep and twice their diameter apart. A double row may be planted in a furrow. Small bulbs and bulblets 2" or 3" deep.

Glads need mildly acid soil. Strongly alkaline soils are unsuitable, producing poor flowers and poor bulbs. The soil should contain much humus. We like to mulch the rows with peat or leaf mould.

Explanation. L. means large, 1¼" or over, or No's 1 and 2. M. means medium, ¾" to 1¼" or No's 3 and 4. S. means small or under ¾".

The Gladiolus Supply

is exceedingly short. Many growers were unable to dig their crop in the fall of 1942 and again last fall. Many have gone out of business. All this resulted from lack of labor. For the same reason, our own crop was nearly suffocated by weeds in early spring and only a part could be saved.

As a result wholesale prices have more than doubled. Another contributing factor here is that cut flowers sold at exceedingly high prices last year from spring to fall. White Glads brought as high as \$2.50 per doz, on the wholesale market and sometimes even more. Growers prefer to keep their bulbs and grow cut flowers.

We did not realize we could not buy more bulbs and listed our own at the usual prices. The inevitable result was that we almost sold out. Now we hardly have enough to grow for cut flower sales. But we have a few that we will share with you at very reasonable prices. We expect to have a good crop this fall. Please order very soon. Late orders may bring disappointment instead of bulbs.

Prices: In the following list 12 bulbs will be sold for the price of 10. But there is no 100 rate or any further discount unless so stipulated. The sizes of bulbs will be over 1". That is Jumbos, No. 1,2 and 3. These sizes give equally good flowers.

Aflame. Large red flowers. 8c. 75c doz.

Albatros. Largest, purest white. 8c. 75c doz.

Annie Laurie. Ruffled rose-pink. 6c. 60c doz.

Ave Maria. Early blue. Tall spike, large flowers. 5c. 50c doz.

Bagdad. Large. Smoky old rose. 5c ea. 50c doz.

Betty Nuthall. Orange pink. 6c. 60c doz.

Gate of Heaven. Ruffled yellow. 6c 60c doz.

Golden Dream. Tall deep yellow 5c. 55c doz.

La Paloma. Early, orange. 5c. 50c doz.

La Verne. Large flowers on a tall spike. Cream with red throat. 5c. 50c doz.

Libelle. The sweetest blue. 6c. 60c doz.

Los Angeles. Pink with grenadine tone. 5c. 50c doz.

Margaret Beaton. Large white, red throat. New. 10c. \$1.00 doz.

Mamora. Immense smoky lavender. 5c ea. 50c doz.

Mvrna. Gorgeous new ruffled cream. 30c ea.

Pelegrina. Deep violet blue. 5c ea 50c doz.

Radiant Orange. Largest, best orange. 5c. 50c doz.

Sonat'ne. Lovely pink. 8c ea. 80c doz.

Wasaga. Apricot pink, close to Picardy. 5c ea. 50c doz.

Wurtembergia. New giant red. 10c ea. \$1.00 per doz.

Mixed. Will include what we have, not a balanced mixture of all. 5c ea. 50c per doz. \$3.00 per 100.

Please don't say "Don't Substitute" on glads, unless quite sure nothing else will do. We will do our best to please.

Miscellaneous Irids

Marica gracilis. Walking Iris or Apostle Plant. Beautiful 2" flowers of white and blue with yellow and brown marking in center. The flowers are followed by a small plant. The leaf-like stem bends over and the plant takes roots, thus walking away from the mother plant. Requires half shade and plenty of water. Often grown and is nice in pots in north. 50c.

M. coerulea grandiflora. Collected in Costa Rica. Leaves 2 or 3 ft. tall. Large flowers, lavender and white. Half shade, abundant moisture. Very rare. Maricas are hardy only in the far south. This species is very tender. \$5.00.

M. Northiana. Rare. Similar to Gracilis but larger plant and flowers. \$1.50.

LILY FAMILY. Liliaceae

The Lily Family includes the true Lilies and their close relatives.

Gloriosa. Climbing Lily. The flowers resemble true lilies but surpass most of them in their gorgeous beauty and high coloring. They propagate by tubers instead of bulbs. The stem is branching and heavy and must be supported.

Culture. They must have sandy soil with leaf mould and peat added, acid (about pH 6.5), full sun or slight shade, plenty water, perfect drainage. We usually plant before Mar. 1, but sometimes as late as May. They need a long season. Plant 4" deep. In the north they may be started early in pots and shifted.

Gloriosa rothschildiana. It deserves the name, **Glory Lily.** Very vivid colors, red with yellow markings, turning later to deep red and then deep rose. 4 to 6 ft. tall. Blooming size tubers, 3" to 5" long, 50c, 6 for \$2.50. Large, extra large and jumbo tubers make much larger plants and more flowers. Price 75c, \$1.00 and \$1.50.

G. superba. Very distinct species. Much taller. Smaller, but exquisite, flowers. Plant grows up to 12 ft. in length. \$1.50.

G. virescens. The finest of all. The flowers resemble *G. rothschildiana* with a shade in their favor. The plant has a stiffer and more erect stem and a sturdier growth with more branches and thus more flowers. Price \$1.50. Very large tubers, \$2.50.

Galtonia candicans Summer Hyacinth. Belongs in the group with Hyacinths and Scillas. 4 ft. scape with many white, bell shaped flowers. For landscape use in backgrounds and for cutting. Plant early, 4" deep in any good soil. Hardy in north if well protected, better to dig and store bulbs. 10c ea., 2 for 15c. 50c doz. Jumbo bulbs, 15c ea., \$1.00 doz.

OXALIS FAMILY. Oxalidaceae.

No bulbs have increased more rapidly in public favor in recent years. This probably results from magazine and radio publicity, and their more frequent appearance in gardens or as house plants. Plants and flowers are variable in form and color and are most attractive and dainty. **Culture.** Plant in full sun exposure in any good soil. All make lovely pot plants and should be grown freely in the garden. The flowers open only in the sunlight.

See the Fall Catalog for the winter growing types. The following are summer growers. In the north they may be potted now. Start slowly. Do not over water.

Oxalis Deppei. Four large leaflets. Deep rose pink flowers on a tall stem. A fine species. 4 for 15c. 35c doz. Extra large, 5c ea. 50c doz.

O. lasiandra. The prettiest summer Oxalis. Tall plant with 7-10 leaflets. Rich carmine flowers. 5c ea. 6 for 25c. Jumbo bulbs, 10c. 75c doz.

O. crassipes. Flowers bright rose. Evergreen and everblooming. Increases by tubers and can be moved at any time, preferably in warm weather. Plant at once. Large tubers, 25c ea.

O. sp. unknown. This rather inconspicuous one is often listed as *O. Deppei* alba. It may be. That would make our *O. Deppei*, probably *O. tetraphylla*. Although we do not care so much for this one, you may as it is a bloomer from Bloomerville. 6 bulbs for 15c. 25c doz. Larger bulbs, 50c doz.

O. Bowiei. (Hort. Bowieiana). We have always listed this as a winter grower as it grows so well here in winter. But it will also grow well in summer. Our bulbs were dug last Aug. and should be planted very soon. As early as possible, in pots or garden. It is one of the very best and seems to be the most popular of all. 3 bulbs (for a 5" pot) 15c. 50c doz.. Largest bulbs, 10c. \$1.00 doz.

ORCHID FAMILY. Orchidaceae.

Orchids are the most exquisite of flowers. Flower lovers are all looking for them, since it has been made known that they can be easily grown in the garden or as pot plants in the house. But the information is a little misleading. The gorgeous Cattleyas require not only a greenhouse, but a special one which has the proper temperature range and correct humidity. In the house they require a Wardian Case, which is practically a glass encased incubator..

In the fall we list *Bletilla* for the outside garden. They are hardy. We can still supply a few at 50c ea. But you must order before Mar. 1. Plant in garden in half shade at once if possible. If not start in pots, leaf mould and sand, barely moist and later shift to garden. I do not recommend for pot culture.

But you can grow large and fine *Cymbidium* Orchids in pots in the north or outside in So. Calif. and Fla. Other places where winter temperatures do not go under 26° to 28°. See culture under each listing.

Epidendrum o'brianum. This orchid has a large terminal cluster of brilliant red flowers, each in the typical orchid form. The flowers open 10 or more at once and are about 1¼" wide. The plant makes a large cluster of tall stems, 3 ft. or more. In nature they grow among grasses or weeds which support them. We can imitate that by growing among erect plants.

They need hot, nearly full sun exposure; an abundance of water in summer. They grow easily in the garden in the south where minimum temperatures are not below 27°.

They like a deep mulch of leaves, small branches, etc. This helps to support the stems, protects the roots when too cold, (ours easily recovered from a low of 20°) and maintains the needed constant moisture of soil.

They grow easily in the garden in the south. In the north they are easy in pots or baskets. Use 50% or more peat or leaf mould.

Prices. Branch with roots attached 75c. Large clumps, up to \$10.00 in proportion to size.

Cymbidium Orchids are immensely popular in So. Calif. and wherever known. Their greatest fault is, they are hard to get at reasonably low prices. They are of easy culture, exquisite beauty, of wide range of colors and early varieties are in flower in Oct., the late ones in July.

The large 4" to 6" flowers are born on a stem often 4 ft. long, from 12 to 30 in number. Well established plants may give 4 or more stems and old clumps up to 35. The flower spikes remain in perfect condition for 8 to 12 weeks. When cut the flowers have unsurpassed lasting qualities and may be used many times in a corsage if kept in a refrigerator between times. Florists retail the flowers for almost as much as Cattleyas.

The flowers are of typical orchid form and in a wide range of colors. It is impossible to give accurate color descriptions of these as altho the species are fairly constant in color the hybrids are quite variable. You must consider our descriptions only as approximate and sometimes not even that.

Culture. *Cymbidiums* are terrestrial orchids from India and Burma where they grow in the moist atmosphere of mountains and foothills in a perfectly drained situation. They are of easiest culture. The shade of the ordinary lath house, lath spaced 1" apart, 50% shade is correct. The shade of trees, if it gives 50 pct. filtered sunlight is excellent. They do best in a sandy soil to which at least an equal amount of fine rotted leaf mould has been added. In pots they may be grown in the same compost used for Begonias or they may be grown in orchid peat and leaf mould. If difficult to get just what you want, take equal parts of loamy sand and fine leaf mould. Wherever planted the underdrainage must be perfect. A soggy soil is very bad. They should always be moist, never too wet. Sprinkling the foliage is good in our too dry atmosphere. When well established give occasional light surface mulch of manure or manure water.

In the following list, the price attached is for a single division. They should flower in one or two years. We have had them flower 10 months after dividing and replanting but few will do that.

Cymbidium Butterfly. Yellow to buff with red lip. \$6.00.

C. Doreen. Greenish bronze, yellow lip spotted purple. \$6.00.

C. Doris hybrid. Variable. The parent has large tawny to russet flowers with purple spotted cream lip. \$6.00.

C. Giganteum. A robust grower. The lovely flowers are smaller than some but as they are the earliest to flower they have no competition. \$6.00.

C. Hookerianum. Beautiful shade of green that is lovely in a corsage. \$6.00.

C. Insigne. Lavender purple and white. The plant is small and the most graceful of the Cymbidiums. Can be grown in relatively small pots. \$6.00.

C. Moira. Cream and yellow marked brown. \$6.00.

C. Winter Cheer. Bronze shaded rose. \$6.00.

Pease note. We deliver Cymbidiums thruout the year. They are shipped bare root packed in damp moss. We prepay postage in the summer but plants sent to cold climates in the north require much more packing and greater care in packing in the winter season. We will send in winter only by express at your expense but with no extra charge for packing.

THE CALLA LILY FAMILY. Araceae

This family contains the so-called Calla Lilies or Zantedeschias, Fancy Leaf Caladiums and the genera, Sauromatum, Amorphophallus and others listed in our spring catalogs.

Culture. Baby Callas are the only white callas that can be moved now. Grow them in slight shade to full sun in pots or garden. The soil should be half sandy loam, half fine leaf mould. Baby Calla is evergreen and should never be dried off.

The Golden Calla, Elliotiana, is exceptionally fine in pots. So also is the *Albo-maculata*. They start more easily now than in late Dec. Give them a 6" pot, soil like Baby. Cover bulb 1". Keep only moist, not too wet until well up. Give them a warm sunny window. If too sunny a lace curtain may be enough shade. They usually bloom quite early. They are fine in the garden. Here we plant Feb. 15 to Apr. 1., in a lath house or other half shade. Dig bulbs and keep them dry as soon as tops yellow. See other culture notes with the listings.

Zantedeschia aethiopica, var Baby Calla. This is the smallest and whitest calla. Small enough for corsage. We send small bulbs as the large bulbs make larger flowers, approaching in size those of Godfrey. For tiny 1" flowers replant your small bulbs. 20c ea. 3 for 50c. \$1.50 per doz.

Z. albo-maculata, Spotted Leaf Calla. White flower. The spear shaped spotted leaves are most decorative even without flowers. 20c. \$2.00 per doz.

Z. elliotiana, Yellow Calla. The most desirable colored Calla. The lovely deep yellow flowers, with the spotted foliage, make a perfect, easily grown and low priced pot plant. Ours are extra fine, high crowned bulbs. 20c.

Z. melanoleuca, Black Throated Calla. New and rare. The largest of colored Callas. Foliage spotted and very decorative. The large, wide open, yellow flowers have a black-purple throat. 85c to \$1.50. ea.

Amorphophallus revieri. Sacred Lily of India. The plants lend a rich tropical effect to borders in the south where they are hardy and even in the north as the bulbs can be dug and stored over winter. 3 ft. or more tall. The huge flowers, 2 ft. long or more are Calla shaped, rich chocolate, dotted red. The Arum fragrance so much liked by flies is not too bad and soon disappears. Plant 4" deep in half shade. Smaller bulbs for 50c and \$1.00. Large bulbs \$2.00 and \$2.50. The large should bloom, especially the \$2.50 size. Very small offsets for 10c. 3 for 25c.

Sauromatum venosum. Lizard Lily. Attractive tropical foliage with spotted petioles. The gorgeous flowers are most unusual, having a long narrow spathe, yellow with purple-black spots. The spotted petioles and peduncles distinguish this species from *S. guttatum* for which this is often sold. Arum "fragrance.." The dry bulbs flower out of the ground early, hence this should be ordered in

Feb. Culture like *Amorphophallus*. Hardy. S. 25c L. (probably will flower) \$1.00. Largest, sure bloomers, \$1.50. Very small offsets, 10c. 3 for 25c.

Fancy Leaved Caladiums. We offer only the finest varieties and the best bulbs obtainable. They cost us more than seedlings, mixtures or bulbs from indifferent growers so we must charge a few cents more. Their foliage is the most gorgeous of all plants, even more richly colored than that of *Coleus*. Some leaves are of delicate tints of a lily or an orchid, others rich and luscious like rose.

Culture. They should have very rich sandy loam, with equal quantity of humus. This humus should be half well rotted dairy manure. Enough of the humus should be peat to render the soil at least neutral to slightly acid. pH 7 to 7.5 will do.

Caladiums must have warmth in all stages. When starting and growing. Even when dormant, leave the bulbs in a warm room. Do not try to start the bulbs in a cool room. They must not be planted outside until quite warm. Caladiums are excellent pot plants. They do well in outside gardens but require much humidity. In the dry air of So. Calif. the plants should have constantly moist soil. Semi-aquatic conditions are fine but not wholly essential. But start them off with only slight moisture. When they are up, gradually increase. Plant about 3" deep. Full sun brings out the rich colors but So. Calif. sun is too "full." We give slight shade.

Your choice of the following sorts. **Thos. Tomlinson.** Blood red, green margin. **Tocantins.** Rose, splashed green. **Charmisso,** deep rose, red veins, dark green border. **Mrs. Edith Mead,** snow white, dark green ribs. **Fanny S. Munson,** entire leaf rose pink with lilac tone.

Be sure to select several second choices on a group, as it is entirely probable that some charge must be made. Do not say "no substitution" on a Caladium order this year. We assure you however that we will only substitute equally fine sorts and as near in color as possible. Prices: 45c ea. \$4.25 per doz. We will mail to the north as early as weather permits.

Begonia Family. Begoniaceae

Tuberous Rooted Begonias. Wonderfully attractive bulbous plants for pots or a cool moist spot in the garden. They are nice around a *Camellia* if not too shaded.

Culture. The best soil is half humus and half fine sand or sandy loam. For humus, use 2/3 peat or leaf mould and 1/3 well rotted cow manure made fine by rubbing thru screen, no lumps. Acid soil is required. Improve this soil if convenient by adding charcoal or a little soot. Give manure water and soot water (handful to 2½ gal.) during growth. Sprinkle daily when growing well but there must not be too much moisture around bulbs before they sprout or they may rot. A good way to start **Tub. Begonia** bulbs as well as *F. L. Caladiums* is in slightly moist peat or spagnum moss in a warm room. Don't hurry them and do not expect them to start too early.

Giant Double Camellia Flowered Begonias are the very best. We offer them in the clearest and most desirable colors, white, yellow, rose, pink, orange, apricot and cardinal red, 1"—1¼" diam. at 25c ea. 5 for \$1.00 or all seven colors for \$1.50.

Gloxinias. Gesneriaceae

Gloxinias rank with *Fancy Leaf Caladiums* as showy pot plants, for their foliage as well as for their large and gorgeously colored flowers. **Culture.** Plant in about a 6" pot using soil as described for *Begonias*. Barely cover bulbs. Handle about the same as for *Begonias* including the feeding and watering. In watering do not let any moisture touch leaves. They require part shade and protection from winds if out side. When flowering ceases and foliage has fully matured gradually lessen the water given. When the foliage has all ripened off, the pots may be stored in a room at about 45° but give just enough water to prevent tubers from shriveling. Toward mid-Feb., those that show signs of growth may be brot out and started.

We offer only the best bulbs, 1"—1¼", in the very best varieties: **Blanche de Meru**, rose, white throat; **Emperor Ferderick**, scarlet, white border; **Emperor**

William, violet, white border; **Mont Blanc**, pure white; **Princess Elizabeth**, blue, white throat. Five exquisite varieties at 45c ea. or all 5 for \$2.00. Don't say, "don't substitute." We may have to but hope not.

Bulbs for Gifts

Did your Christmas Shopping for Gifts prove successful? Or did you find manufactured articles to be very high priced, constructed of substitute materials unlikely to last very long, and even at that not enough to go around?

Or, did you take our advice and buy bulbs? Bulbs are the logical gifts for the duration. Some are more scarce than usual, some cost just a little more but most prices are about at pre-war level. There are enough to meet requirements.

For Mother on her day, for Dad on his, for birthdays, for the sick, in fact on all occasions give bulbs, dry or potted, as gifts. You will be giving something that is perfect in workmanship, enduring and always appropriate.

Naturally, Bonds, are better gifts but if you can't give Bonds give Bulbs.

Ranunculus and Anemones. Ranunculaceae

They are among our most popular flowers. Their vivid colors, cheapness and easy culture fit them for top rank in the amateur gardener's esteem.

Ours are the **Giant Double Flowering Ranunculus**. They range in color from red, pink, white to yellow. There is no blue. If well grown the flowers are very double, in a variety of shades.

Anemones are red, pink, white and blue in a variety of tones, but no yellow. They should be grown with **Ranunculus** to make a complete color range. Our **Anemones** this year are mostly the single large flowering **De Caen** type altho there may be a few doubles and semi-doubles in the mixtures.

Culture of Anemones and Ranunculus is very easy if one conforms to their requirements. The soil should be rich. Sandy loam is better than heavy soil. Heavy soils may be made suitable with humus. The plants need constant moisture, and drying out or baking of the soil only once will result in less perfect flowers, and may be fatal. The beds should be well drained and never soggy. Too much water rots the bulbs before sprouting.

This point is very important as altho we may say these bulbs are easily grown, and this is true, yet many fail in starting them. They must always be only slightly moist, never wet and never dry. They must also be always cool,—not too cold, not too hot. About 50° to 70° is close to ideal starting temperature.

When started, everything is fairly easy. Because as many become a little careless at times in this starting process and are so loathe to admit it we frankly disclaim responsibility for your results because they are out of our control. But our bulbs are good and you will likely get 50% or better success the first time you try them. Under average conditions 75% is rather good tho experts reported 100% results from our bulbs.

Plant 1" or 2" deep and 4" to 6" apart, depending on size. Do not soak bulbs. When weather is dry and warm a slight cover of brush helps and also keeps birds away. A shade of cloth or lath is good. They like cool conditions and the greatest threat is a heat wave shortly after planting. Heat and moisture combined rot the bulbs. In the fall, it is best to delay planting until weather is cool, but if hot weather follows, put up shade. One can gain a couple of weeks on the chances of hot weather by sprouting the bulbs before planting. Fold the bulbs in a wet burlap sack and lay in the cool shade of a tree. Plant before sprouts are over 1".

This method of sprouting in the spring is useful in getting an earlier start.

A very good comparison for the culture requirements of these bulbs is that of **Sweet Peas**. You would not plant sweet pea seed in July or August, nor in September if it were hot or likely to be. Nor does the wise gardener soak his sweet pea seed. Sweet peas need cool weather, very rich deep soil, but no raw manure. The seed bed must be kept slightly moist, but well drained. The soil must never bake or have a crust formed. One must not overwater at first as constant soggy condition of the soil is sure to rot the **Sweet Pea** seed. You must protect the young plants from birds, cut worms, snails, etc.

Just substitute "**Ranunculus and Anemones**" for "**Sweet Peas**" and you have

their culture requirements.

In a cool climate like that around San Francisco Bay, the bulbs may be planted almost anytime of year. In the north they may be planted as early in the spring as the ground may be worked. They are not hurt by temperatures considerably under 32°. We have had them keep on blooming and growing when our night temperatures reach 20°. Too much rain after planting may rot bulbs.

For Potting. Ranunculus and Anemones do well and bloom beautifully in pots in a sunny window or a green house. They require a very cool room and a hot room will often result in failure to flower or even to grow well just as the same results may follow for Freesias, Lachenalias, Veltheimias and all bulbs that grow and flower in the winter in California. But our spring blooming bulbs like Amaryllis, Lilies, etc., like more warmth.

It is advisable to use the larger sizes for potting. A Jumbo bulb will make a large plant and give many flower spikes. Three will nicely fill a 6" to 8" pot. Sizes No. 1 and 2 also force well in pots.

Don't fertilize before planting. Use light applications when 3" tall.

Use the regular potting soil advised and be sure of perfect drainage.

For outside planting, we advise size No. 3 for economy. However larger bulbs will produce specimen plants, with more flowers. They will also bloom a little earlier than No. 3 bulbs and are slightly easier to grow.

Special Prices. We are offering these at especially low prices this spring, below the pre-war levels, (altho they costs us 33 1/3% more) for two reasons. First, we expected a much heavier demand than usual last fall and bot up to this expectation, raising our prices in proportion to our increased cost. Now we have an unusually large number on hand for this time of year. We wish to close these all out, altho two and even three year old bulbs will grow. This is a frank explanation of our prices. Second. We want you to have the benefit of our over-optimism of last fall. You can try out growing them at less cost than ever before. They are not likely to be offered at these prices ever again.

Prices Ranunculus and Anemones.

Size No. 3 15c doz.	\$1.00 per 100.	\$1.75 per 200.	\$3.75 per 500	\$6.50 per 1000
Size No. 2 30c doz.	\$1.75 per 100	\$3.25 per 200	\$7.00 per 500	\$12.00 per 1000
Size No. 1 45c doz.	\$2.75 per 100.	\$5.00 per 200	\$11.50 per 500	\$20.00 per 1000

Ranunculus only.

Top size, 2 for 15c. 50c doz. \$3.75 per 100.

Jumbo, 10c ea. 75c doz. \$5.00 per 100.

MISCELLANEOUS: BULBS, PLANTS, SEED, etc.

Commelina coelestris. (Commelinaceae.) **Day Flower.** The most intense, bluest blue flower. Flowers open about noon in greatest profusion. Plants are almost perpetual bloomers. Plant tubers 2" or 3" deep. Full sun. Easy culture. Three for 20c. 50c doz. Extra large tubers, 15c ea. \$1.00 doz.

New Violet, Royal Robe. Large lustrous flowers of deepest violet-blue on long stems. Intensely fragrant wide open flowers. You can grow these outside like any other violets or in pots in the house. They will be best suited in a temperature of about 50° F. They do not like heat, and do not bloom if much warmer. They grow well in any good garden soil, like plenty of moisture but should not be overwatered. Price 40c ea., or 3 for \$1.00.

Shasta Daises. These should be ordered quite early as our winter is the best time to move them. Our winter is likely to end by late Feb. If you order late, we will send them and they will be likely to grow with proper care but we assume no responsibility for the care you give them or the results of late planting. If too cold to plant outside, start in pots and shift later. Daises like slight shade in very hot inland climates. Very easy to grow.

Chiffon Daisies. Beautifully twisted and curled, narrow petals in an almost full double flower. Single division, 15c, 2 for 25c. \$1.00 per doz.

Esther Reed. The favorite, fully double daisy. No hard center. Single division, 25c ea.

BILLBERGIAS. Bromeliaceae

Billbergias have a rich, tropical appearance with the showiest inflorescence. In both foliage and flowers they are most unusual and most lovely. The foliage

is stiff and erect forming a cup. They are tender tropicals that are easily grown in pots but do well outside in So. Calif.

Being epiphytes they should be rooted in almost pure leaf mould, wood earth, (rotted wood), peat or sphagnum moss mixed with a little sand for greater substance. But they do quite well in half sand and half leaf mould or peat. Here in our hot sun they need half shade, but in the house, a sunny window is usually right. Sun brings out rich colors of foliage but don't over do the sun exposure as it may burn the leaves and prevent their functioning. The "cups" should hold a drink when growing. In the winter they rest and when you start them in winter do it "easy like." Not too much water until well rooted and growing but never allowed to dry out.

N.B. It is too cold to ship the higher priced sorts of these tender tropicals to the north by mail before Mar. We do so only at your risk. Unless you direct otherwise we will give them extra packing, and ship them by express, f.o.b. The Express Co., assumes full liability for safety.

Billbergia nutans. The earliest to flower, often late Dec., usually in Jan.-Feb. The inflorescence is most beautiful. Price 50c. With bud showing, \$1.00.

B. latifolia. Attractive large green leaves, with transverse bars of gray on outside. Blood red flowers bracts and dark blue flowers. Free blooming thru warm weather. \$2.50.

B. distachia hybrid. Foliage reddish green with cream spots. Long spikes with rose pink bracts and blue margined green flowers. Blooms in early spring and a few in late summer. \$1.00.

B. macrocalyx. Pink bracts with blue bordered flowers. Erect instead of drooping inflorescence. Late. \$2.50.

B. rubro-cyanea. The foliage has very rich variable markings of green, red and white. Flowers green, edged dark blue with crimson bracts. \$1.50.

B. speciosa. Light green leaves with greyish bloom on back. Gorgeous inflorescence of green flowers with pink bracts. \$2.50.

B. thrysiflora. Abundant and gracefully recurved bright green leaves. Startling inflorescence of scarlet bracts and purplish flowers. \$2.50.

Miscellaneous Seed

Clivia miniata and **C. miniata hybrids.** Seeds will be sent when ripe. This will be between Feb. and June. 25c.

C. Nobilis hybrids, from selected plants. 50c ea.

Hippeastrum advenum. Plant at once. Fall bloomer. Cover seed with $\frac{1}{2}$ " soil. Use regular potting soil. Easy to grow like any other seed. 10c pkt.

Sesbania. Sometimes called **Tree Wisteria.** These grow 5 to 8 ft. tall in tree form with all branches near top giving umbrella-like shape. The flowers are red in large racemes. Plant seed as you would plant a bean, (they belong to Bean Family), where you will want the plant to remain as they do not transplant easily. Or plant each seed in a pot and shift when proper size. The seed and seedlings must not become dry. They flower well the second year. This is a most attractive and unusual shrub in the far south and is worthy of growing in tubs in the north. Being deciduous, they can be stored in basements in winter. 25c pkt.

Tecolote Bill's Fancy Corn. Most gaudily colored. There are white ears, black, blue, pink, red or striped ones but most of them will consist of several colors. We cannot promise exact colors as like Tecolote Bill you never know what he is going to do. They will be interesting and attractive decorations for around Thanksgiving to Christmas. 25c per pkt.

Aunt Mary's Sweet Corn. This almost unknown variety is our favorite. Not because it is sweeter or better in flavor than Golden Bantam or Country Gentlemen but it has larger grains on large ears and it stays soft and succulent a long time. Indeed it is difficult to get the grains to harden up and ripen. 25c pkt.

Burpee's Stringless Green Pod Beans. We always considered Ky Wonder Beans the only first quality Beans until we grew these. These are so much earlier, bear thru such a long season that they are good enough for us. The flavor is as good as Ky Wonder. 25c pkt.

All the above seed are our own products.